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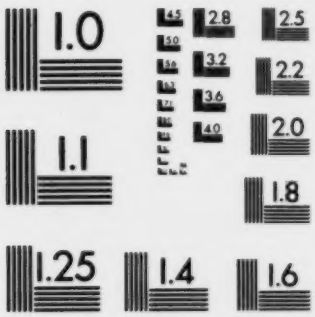

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The Vascular Flora of Fundy National Park, New Brunswick

Michael P. Buczynski,
Stephen J. Woodley,
and Anne Marceau

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THE NEW BRUNSWICK MUSEUM

LE MUSEE DU NOUVEAU-BRUNSWICK

THE VASCULAR FLORA OF FUNDY NATIONAL PARK NEW BRUNSWICK

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ABSTRACT

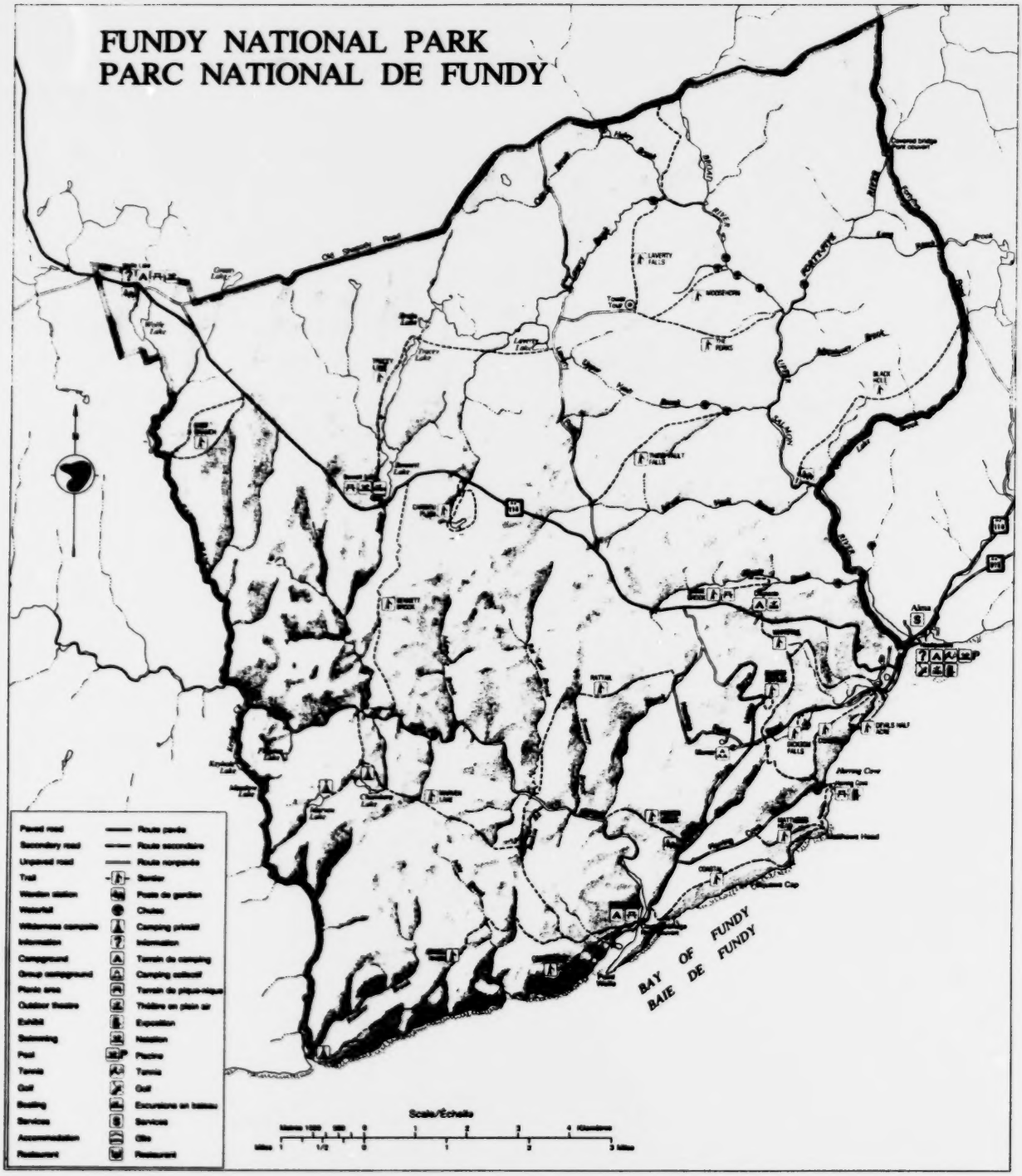
The flora of Fundy National Park is typical of the Fundy Coast Section of the Acadian Forest as described by Rowe (1972). The plants of the Park reflect a mixing of Boreal, Canadian, and Alleghenian elements with a large number of introduced species. Major dynamic forces affecting the vegetation are insects (especially the spruce budworm, Choristoneura fumiferana), pre-park farming and logging practices, diseases, ice and wind storms, and browsing and grazing animals. Fire plays only a minor role, due to the climatic influence of the Bay of Fundy. To date, 545 species of vascular plants representing 84 families are known from the Park. These are presented as a list annotated with English and French common names and information about habitat and abundance. Of the plants, nine have been described as rare or unusual for the park (Dryopteris fragrans, Woodsia glabella, Juncus vaseyi, Luzula parviflora, Clematis occidentalis, Draba arabisans, Saxifraga paniculata, Epilobium hornemanni, and Viburnum edule) and six are rare in New Brunswick (Selaginella selaginoides, Asplenium viride, Oryzopsis pungens, Poa glaucantha, Carex capillaris, and Sanguisorba canadensis). Primula farinosa and Myosotis stricta are not found elsewhere in New Brunswick, Erophila verna is not found elsewhere in Atlantic Canada, and the Park is the only known location in Canada for Carex caryophyllea.

RESUME

La flore du Parc national de Fundy est typique de la Section de la cote de Fundy de la Foret acadienne telle que decrite par Rowe (1972). Les plantes du Parc refletent un melange d'elements boreaux, canadiens et alleghaniens avec un grand nombre d'especes introduites. Les principales forces dynamiques affectant la vegetation sont les insects (specialement la tordeuse des bourgeons de l'epinette, Choristoneura fumiferana), les pratiques agricoles et forestieres anterieures au parc, les maladies, la glace et les vents de tempete ainsi que les animaux de patis et de paturage. Le feu ne joue qu'un role secondaire, du a l'influence climatique de la baie de Fundy. A ce jour, 545 especes de plantes vasculaires representant 84 familles sont connues dans le Parc. Celles-ci sont presentees sous forme d'une liste annotee avec les noms vulgaires en anglais et en francais et des renseignements sur leurs habitats et leur abondance. Parmi ces plantes, neuf ont ete designees comme rares ou peu communes pour le parc (Dryopteris fragrans, Woodsia glabella, Juncus vaseyi, Luzula parviflora, Clematis occidentalis, Draba arabisans, Saxifraga paniculata, Epilobium hornemanni, et Viburnum edule) et six sont rares au Nouveau-Brunswick (Selaginella selaginoides, Asplenium viride, Oryzopsis pungens, Poa glaucantha, Carex capillaris, et Sanguisorba canadensis). Primula farinosa et Myosotis stricta ne se retrouve nulle part ailleurs au Nouveau-Brunswick, Erophila verna ne se retrouve nulle part ailleurs dans le Canada Atlantique et le Parc est le seul endroit connu au Canada pour Carex cryophyllea.

ACKNOWLEDGEMENTS

This flora is the result of work done at Fundy since the park's establishment in 1948. Compilation of the list was carried out by Burzynski and Marceau, in part while the first author was employed with Parks Canada. Specimens have been collected and identified by a wide range of dedicated people since the Parks founding, and it is their attention to the plants of the park that has resulted in our current knowledge. The discussion of the park vegetation and plant communities was prepared by Woodley and is modified from work that he completed in the course of the Fundy National Park Resource Description and Analysis of 1985. Special thanks are due to Hal Hinds, Curator of the Connell Memorial Herbarium, University of New Brunswick, Fredericton for his help with this project, and to Brenda Butland for her numerous typed drafts.


FUNDY NATIONAL PARK
PARC NATIONAL DE FUNDY
BAY OF FUNDY
BAIE DE FUNDY
Scale/Échelle

THE VASCULAR FLORA OF FUNDY NATIONAL PARK

INTRODUCTION

Established in 1948 and officially opened in 1950, Fundy National Park occupies an area of 207 square kilometres in southeastern New Brunswick beside the upper Bay of Fundy. Most of the Park is in Albert County, with small portions extending into Kings and Saint John Counties. Fundy National Park is characteristic of the rugged Bay of Fundy coastline and associated plateau-like Caledonia Highlands of southern New Brunswick. The entire area of the Park lies within the Fundy Coast Section of the Acadian Forest Region (Rowe 1972).

The Park's eastern, northern, and western boundaries are uninhabited. In recent years the forest surrounding the Park has been extensively clearcut with some areas replanted in jack pine. Thus, Fundy National Park has become an isolated island of forest in southern New Brunswick. The Park area has had an extensive history of human use since the early 1800's. Most of the Park was lumbered in the past and many old fields remain from the small farms, whose inhabitants laboured against difficult agricultural conditions.

While the vascular flora of Fundy National Park has been studied intensively, most of the information is in unpublished manuscripts and reports and thus not readily available. Early studies of the vascular flora of the Park consisted of plant lists (Christie 1967, MacFarlane 1972) that over the last decade or more have been greatly expanded through general field work and specialized surveys (Hirvonen and Madill 1978, Hinds 1982).

Here we present an annotated list of the vascular plants that have been recorded in Fundy National Park to date, along with discussion of the vegetation and plant communities present.

The annotated list is based on extensive field experience in Fundy National Park as well as the reports and unpublished manuscripts of Lothian (1950), Kerekes (1967), MacFarlane (1972), Berube (1972), Cleyden (1974), Deichmann et al. (1974a), Deichmann et al. (1974b), McGinity (1977), Deichmann et al. (1980), Marceau (1981), Hinds (1982), Hinds (1983), and Burzynski (1983). Unless otherwise indicated, all plants are represented by specimens in the Fundy National Park herbarium.

Eight of the vascular plants that occur in the Park are considered rare in New Brunswick, the least common being the bird's-eye primrose (Primula farinosa = P. laurentiana). The only New Brunswick location for this plant is the eroding cliffs at the mouth of Point Wolfe River. Rare plants in the Park are generally associated with calcium-rich rocky gorges, rocky outcrops and river valleys, where competition with other plants is low.

Throughout this document, the nomenclature of Kartesz and Kartesz (1980) has been followed.

The vascular flora of Fundy National Park may be summarized as follows:

Pteridophytes	42 species
Spermatophytes - Gymnosperms	16 species
- Angiosperms	
- monocots	124 species
- dicots	363 species
TOTAL	545 species

PHYTOGEOGRAPHY

The diversity of vascular plants in Fundy National Park is low in comparison with other national parks in Atlantic Canada (Table 1), reflecting the relatively small size of the park as well as low habitat diversity. Nevertheless, the vascular flora of the Fundy region has a long history that has been discussed by Roland and Smith (1964). Although the present species composition has only existed for 10-15 thousand years, the individual genera and species are often very old.

Table 1 Species of Vascular Plants Found in Fundy National Park in Relation to Other Geographical Areas (Estimates)

	Area (km^2)	No. of Species
Gros Morne National Park	1,500	600
Forillon National Park	250	590
Kouchibouguac National Park	239	619
Province of Nova Scotia	55,491	2,000
Province of New Brunswick	73,436	2,000
Cape Breton Highlands National Park	939	701
Fundy National Park	206	545
All of Canada	9,922,335	4,837

The origins of different floras or groups of plants can best be understood by examining the history of continental drift. About 50 million years ago, much of the northern hemisphere was pushed together into one huge continent. This land mass, called Laurasia, included present day North America, Europe and Africa. Laurasia's climate ranged from sub-tropical to cool-temperate and the continent thus contained a wide range of plant species. During that time, even the area that is now northern Canada was blanketed in mixed and hardwood forests.

Over the following millions of years, Laurasia drifted northward and was split by a volcanic rift that eventually formed the Atlantic Ocean, separating America from Europe and Africa. As the climate cooled, most of the hardwoods were pushed southward, leaving only the hardier plants that form the present boreal and arctic floras. A definite climatic zonation developed from north to south, controlling the plant associations which persisted with few changes until the present.

Southern floras on different continents have been isolated longer than groups of plants to the far north, because the splitting of Laurasia began in the south. Thus, some species of arctic and boreal plants are spread throughout the northern henisphere, that is, they are circumpolar in distribution. Temperate plants, on the other hand, have been separated long enough to evolve into distinct species. However, there are close resemblances. For example, the European Norway maple (Acer pseudoplatanus) is very similar to its North American relative, the sugar maple (Acer saccharum) and the European Scotch pine (Pinus sylvestris) and our jack pine (Pinus banksiana) likewise share many characteristics.

A series of ice ages during the Pleistocene period had perhaps the geatest effect on the regional flora. From one million until only 10,000 years ago virtually all of eastern Canada and part of the northern United States were repeatedly covered with ice. Warm interglacial periods allowed plants to migrate northward, only to be pushed southward as the region cooled and glaciers formed.

In Atlantic Canada, glaciers only retreated 10-15,000 years ago and there is some evidence that local ice advances occurred on the highlands of the eastern part of the region as recently as 10,000 years ago.

As the last ice mass retreated, plants expanded into this area from the south and west. Analysis of pollen from peat bogs suggests that tundra and cool, dry grassland conditions persisted for the next thousand years. Slowly, the first trees became established - poplars, aspens, birches, fir, spruce and pine. Other hardwoods and associated plants came later: sugar maple, beech and elm.

The plants of Fundy National Park can be divided into six groups or floral elements. A floral element is composed of those plants that have more or less the same distribution and thus a similar history. Fundy's floral elements are shown in Figure 1.

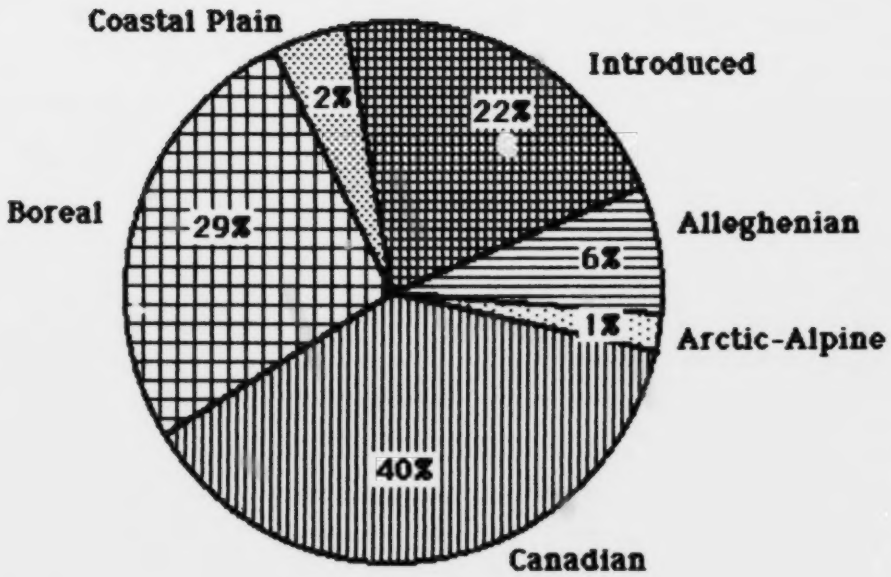


Figure 1. Estimated breakdown of the floral elements as they are represented in Fundy National Park.

Artic Alpine Element

Probably the first plants to reach the Fundy area following glaciation were those able to survive near the receding ice. Many of these were subsequently outcompeted as the advancing, more southerly flora, colonized the area. Today, the arctic-alpine element shows a regionally disjunct distribution and is found locally in such areas as rocky outcrops, bogs and eroding hillsides. This group makes up most of Fundy National Park's rare plants and includes:

bird's eye primrose	-----	Primula farinosa (=P. laurentiana)
roseroot	-----	Sedum rosea
low spikemoss	-----	Selaginella selaginoides
smooth woodsia	-----	Woodsia glabella
green spleenwort	-----	Asplenium viride
livelong saxifrage	-----	Saxifrage paniculata (=S. aizoon var. neogea)

Boreal-Element

Boreal forests stretch across all of northern North America. Such extensive development probably occurred following the last ice age (Pleistocene) when cool wet weather led to large expanses of poorly drained land. Boreal plants are generally those associated with the spruce-fir forests. This relatively northern group of plants is found right across North America, Greenland, Europe and Asia:

white spruce	-----	Picea glauca
black spruce	-----	Picea mariana
paper birch	-----	Betula papyrifera
bog cotton	-----	Eriophorum angustifolium
twinflower	-----	Linnaea borealis
green alder	-----	Alnus viridis ssp. crispa (=A. crispa)

Canadian Element

The background flora of northeastern North America, ranging from the Atlantic Provinces to Manitoba and south to Pennsylvania is called the Canadian Element. Confined in distribution to eastern North America, these plants have been isolated from their Eurasian relatives for a longer time. This group includes many of the common plants of Fundy:

red spruce	----	Picea rubens
sugar maple	----	Acer saccharum
Canada honeysuckle	----	Lonicera canadensis
rhodora	----	Rhododendron canadense
sheep laurel	----	Kalmia angustifolia
rose twisted-stalk	----	Streptopus roseus
partridge-berry	----	Mitchella repens
sensitive fern	----	Onoclea sensibilis

Alleghenian Element

Plants that are generally characteristic of rich deciduous woodlands and range mainly far to the south are called the Alleghenian Element. Most of these plants approach their northern limit in Fundy. Within the Park, this group is confined to hardwood forests and alluvial floodplains where they may be rare or locally abundant:

purple trillium	----	Trillium erectum
trout lily	----	Erythronium americanum
silvery spleenwort	----	Deparia acrostichoides
		(=Athyrium thelypteroides)

Introduced Flora

A large number of plants (about 130 species) have been introduced to the Fundy National Park area. Most came from Europe with settlers, in grain or in the rocky soil of ships' ballast. Introductions are still going on today and many species of this group are rapidly spreading. Because of the old field habitat in Fundy and the planting done by early settlers, introduced plants are well represented. Some naturalized species such as coltsfoot (Tussilago farfara) can be found even in remote river valleys. Other examples of introduced species are given below:

yarrow	----	Achillea millefolium
ox-eye daisy	----	Leucanthemum vulgare
		(=Chrysanthemum leucanthemum)
red clover	----	Trifolium pratense
rhuberb	----	Rheum rhaponticum
timothy	----	Phleum pratense
hops	----	Humulus lupulus
apple	----	Malus sylvestris
		(=Pyrus malus)
Norway spruce	----	Picea abies
lilac	----	Syringa vulgaris

Coastal Plain Element

A small group of Fundy's plants typify a larger flora that stretches along the coastal zone of eastern North America as far as Central America. This flora developed during periods of glaciation when lower sea levels created a coastal plain. The area provided an unglaciated refuge and a bridge for northward migration. Examples of this flora in Fundy are:

narrow leaved sundew	----	Drosera intermedia
yellow-eyed grass	----	Xyris montana
bog club-moss	----	Lycopodium inundatum

FOREST TYPES

Forest Region

Fundy National Park is listed by Rowe (1972) as part of the Acadian Forest Region, characterized by red spruce, balsam fir, yellow birch and sugar maple. This region is closely related to the Great Lakes - St. Lawrence Forest Region with its hardwoods, and to a lesser extent to the more northernly Boreal Forest Region with its conifers.

Forest Sections

The Acadian Forest Region is divided into sections based on tree species, local geology and climate. Fundy's entire area falls within the Fundy Coast Section (Rowe, 1972). Bordering the Bay of Fundy, this region is characterized by steeply-rising uplands and marine climatic influence. The dominant tree is red spruce.

Loucks (1962) in **A Forest Classification for the Maritime Provinces**, divides the Park area into two ecoregions: the immediate coastal area is part of the Spruce-Fir Coast Zone, and the areas 3 - 4 km from the coast are part of the Maritime Uplands Ecoregion of the Sugar Maple - Yellow Birch - Fir Zone. Such a classification fits Fundy much better that that provided by Rowe (1972) because of the hardwood stands that become prominent on inland ridges in the Park.

Forest Description

Fundy is 93% forested land (19,500 ha.). Hirvonen and Madill (1978) prepared a detailed forest cover map of Fundy based on cover type, height class, condition class and density class. Their data have been updated to 1983 by park staff to account for recent major changes to the forest, primarily due to the spruce budworm.

Major tree species in the Park are red spruce, black spruce, balsam fir, yellow birch, white birch, red maple and sugar maple. Less common trees are larch, beech, white spruce, white pine and trembling aspen. Only odd specimens of red pine, eastern white cedar, black ash and large-toothed aspen occur (Figure 2).

Park forests are mainly a mix of hardwood and softwood trees (488.6%). Only 2.4% of the Park is classic spruce-fir forest and there is also a small amount of pure hardwood forest (5.4%). More than 1/3 of the Park's forest (37.4%) can be classified as disturbed forest. This forest was once mainly softwood but is now regenerating in a mix of white birch, balsam fir, red spruce and yellow birch. A dense understory of small trees reflects rapid regeneration following heavy forest mortality due to spruce budworm activity.

Many stands are uneven-aged and multi-storied, containing 2 or more height classes. Multi-storied forests provide for ecological diversity with different species of insects, birds, and mammals using different levels of the canopy.

Present forest conditions are a result of three main effects: extensive forestry practiced from 1825 to the late 1940's, old field succession on abandoned farmland, and the effects of spruce budworm feeding.

LEAST ABUNDANT

Elm
Hemlock
Red Pine
Black Ash
Eastern White Cedar
Trembling and
Large-toothed Aspen
White Pine, Larch
Beech, White Spruce, Black Spruce
Red Maple, Sugar Maple
White Birch, Yellow Birch
Balsam Fir
Red Spruce

MOST ABUNDANT

Figure 2. Relative Abundances of tree species in Fundy National Park

In conclusion, the major forest characteristics of Fundy National Park can be summarized as:

- low species diversity - mainly red spruce and yellow birch.
- mainly a mixed forest of hardwood and softwood trees.
- 37% regenerating after budworm mortality.
- pure hardwood stands on well-drained hilltops.
- old-growth red spruce forests in stream valleys, 33+ metre trees (100+ feet)
- major dynamics - spruce budworm, forestry before Park establishment, wind and shallow soil effects along coast and in valleys.

VEGETATION ASSOCIATIONS

Natural groupings of plant species are called vegetation or plant associations. Such groupings include forest cover and are often the best definition of "habitat" or ecosystems. For Fundy, plant associations were determined in the Integrated Resource Survey (Hirvonen and Medill, 1978). They are summarized in Table 2.

As indicated, the most common forest type in Fundy National Park is mixed forest - softwood predominant (18.6%). The single largest habitat is the disturbed forest (37.4%) which has trees killed by spruce budworm. This forest is presently regenerating to mixed and softwood forest.

Wetlands are poorly represented in the Park (total 1.4%). Of the wetland habitat, stream edges are the best represented because of the numerous small streams in the Park. There is only one large bog, Caribou Plain, but it is an excellent example of a raised bog. Small floating bogs surround Marven and Chambers Lakes. Riparian or stream-side communities are the most fertile habitats in the Park. Alder swamps occur locally along slow moving streams but are restricted to less that 0.1% of the Park.

Old fields, mainly left from pre-park farms and villages, cover 3.2% of the Park (Table 2). A dominant characteristic of these fields is low fertility resulting from many years of farming. These impoverished fields are extremely slow to revegetate and are covered mainly be bentgrass (Agrostis tenuis), wire grass (Danthonia spicata), hawkweeds (Hieracium spp.) and goldenrods (Solidago spp.), with a few balsam fir and red and white spruce.

Some fields, such as those of the old Federal Department of Agriculture Potato Research Station, were abandoned more recently (1978) and are much different from the old farms. The research station was well fertilized and is regenerating rapidly in fir and spruce. A notable characteristic of old field communities is the presence of exotic vegetation. Around foundations and old garden plots are rhubarb, apple trees, lilac and many other cultivated plants.

Other plant communities include Park facilities (1.3%) old borrow pits (.03%) and talus slopes (.04%). The first category covers a wide range of habitats, from bluegrass turf to wooded campgrounds and parking lots. Talus slopes occur in steep-sided valleys, such as Mile Brook and Herring Cove and along sections of sea coast such as at Devil's Half Acre. Because the slopes are actively moving and rapidly drained, vegetation tends to be sparse. White birch, red maple and the occasional red spruce are the most common trees on talus slopes.

Coastal plant communities within Park bounderies include salt marshes, coarse beaches and coastal cliffs. Salt marshes are very restricted in size and distribution and are found only at the mouths of the Upper Salmon, Point Wolfe and Goose Rivers. Associated with barrier bars at the mouths of some rivers are small coarse sand beaches supporting lyme grass, beach pea and other salt-tolerant plants.

The coastal cliffs have never been well mapped or described. Because of extreme slope, salt spray and wind, they support only sparse and specialized vegetation, such as roseroot (Sedum rosea) and seaside plantain (Plantago maritima).

Table 2 Major Vegetation Types - Fundy National Park

MAJOR VEGETATION TYPES	DOMINANT TREES	PLANT ASSOCIATION	LOWER VEGETATION	% OF PARK	AREA IN HECTARES
FOREST					
hardwood forest	sugar maple, beech yellow birch	Dryopterietum-violetosum (rich hardwoods - Birch-Maple) Maple-Beech-Birch	spinulose wood fern, Viola spp., bristly clubmoss, Trillium spp.	5.4	1117.8
	red maple	Aceretum (red maple stands)	spinulose wood fern, wood sorrel, wild lily of the valley, red maple	0.1	20.7
mixed forest hardwood predominant	white brich yellow birch, red spruce	Dryopterietum (mixed birch-spruce)	striped maple, fly honeysuckle, spinulose wood fern, wood sorrel	18.6	3850.2
mixed forest softwood predominant	red spruce, balsam fir, yellow birch, yellow birch, red	Drypoterieto - Cornetum (mixed spruce-fir-birch)	spinulose wood fern, aster, moss spp.	30.0	621.0
softwood forest	red spruce, balsam fir	Cornetum (spruce-fir forest)	spinulose wood fern, bunchberry, moss spp.	0.7	144.9
	black spruce	Piceetum (black spruce bogs)	kalmia, blueberry, goldthread, Sphagnum	1.7	351.9
distrubed forest	dead and dying spruce and fir (from budworm)	Rubetum strigosae (budworm killed forest)	rasberry, balsam fir, red spruce, white birch and yellow birch regeneration; Cladina spp.	37.4	7741.8

Table 2 Major Vegetation Types - Fundy National Park

MAJOR VEGETATION TYPES	DOMINANT TREES	PLANT ASSOCIATION	LOWER VEGETATION	%OF PARK	AREA IN HECTARES
NON-FOREST					
Wetlands					
sedge meadows		Caricetum (sedge meadows)		0.2	41.4
stream edges		Riparian	alder, meadowsweet, shadbush, Myrica gale	1.0	207
alder swales		Alnetum	speckled alder, Aster spp.		
bogs		Sphagnetum (sphagnum bogs)	Sphagnum spp., kalmia	0.2	41.4
UPLAND GRASSLANDS					
old fields		Hieracieto-Agrostietum (nutrient-poor fields)	balsam fir, seedlings, bentgrass speckled alder	2.6	538.2
		Rubeto hispidae-vaccinietum	blueberry, blackberry Cladina spp., Sphagnum spp.	0.4	82.8
		Rubeto-Dennstaedtietum (wet fields)	raspberry, Carex spp., goldenrod, bentgrass	0.1	
roadsides		mowed road edges	Kentucky bluegrass Aster spp., hawkweeds	0.1	23

Table 2 Major Vegetation Types - Fundy National Park

MAJOR VEGETATION TYPES	DOMINANT TREES	PLANT ASSOCIATION	LOWER VEGETATION	% OF PARK	AREA IN HECTARES
OTHER					
park facilities		campgrounds, picnic sites, golf course,	Kentucky bluegrass white clover	1.3	269.1
gravel pits		Dickson Pit, Haslam Pit, Motel Pit, Wolfe Lake Pit	moss spp., sedge spp., alder	0.05	10.4
talus slopes	red maples, birch red spruce	Mile Brook, Herring Cove Road		.04	8.3
coastline		salt march	Spartina spp., sedge	0.01	2.2
		high littoral-sheltered (coarse beaches)	beach pea, lyme sea-side goldenrod	0.01	2.0
		coastal cliffs	roseroot.....	0.01	23.0

VEGETATION DYNAMICS

Successional trends in Fundy have been briefly discussed by Hirvonen and Medill (1978). The *major influences on vegetation in Fundy National Park are as follows:*

Insects - Forest insects have historically had a dominant role in controlling and modifying Fundy's forests. By far the greatest change has been wrought by the spruce budworm (Choristoneura fumiferana), which has defoliated approximately 1/3 of Fundy's forests since the late 1960's.

Budworm defoliation was first evident in the area from 1914-1917 and again during the early 1950's. Defoliation levels fluctuated from light to severe until 1967, when it reached widespread and severe proportions. The National Park was sprayed with organophosphate pesticides from 1967 to 1975, when a decision was made that such spraying was contrary to Parks Canada policy. Since 1975, there has been widespread defoliation and mortality of coniferous trees in Fundy.

In **An Appraisal of Conditions in the Softwood Forest of Fundy National Park** (1979), Gray documented conifer mortality due to budworm. He concluded that the changes to the forest were indeed dramatic, but the same changes would have occurred with or without the spray program. (The spruce-fir forest has been defoliated by spruce budworm at regular intervals for thousands of years). Forests are not simply destroyed -- they are rejuvenated in a very dramatic but very stable system. In Fundy, these areas are now rapidly regenerating in white and yellow birch, balsam fir and red spruce.

In addition to the spruce budworm's effect on the spruce-fir forest, many other insects have been important: Fall cankerworm and leaf rollers have defoliated hardwoods, and balsam wooly-aphids have attacked softwoods. Generally, these insects have had only a localized effect on forest conditions.

Fire - Fire is not an important agent in the dynamics of Fundy National Park forests. There is only one record of a fire in the Wein and Moore (1977) suggested that the Fundy coastal area of

New Brunswick has experienced fewer prehistoric fires than other parts of the provence and this has been supported by examination of cores from Caribou Plain bog (Burzynski, 1984). The major reason for this low fire frequency is the cool moist climate along the Bay of Fundy.

Diseases - Forest diseases (viruses and fungi) are many and varied but they have been only locally important as a factor affecting Fundy's forests. Major diseases have been documented by the Canadian Forestry Service. The most important ones are listed below:

Major Forest Disease in Fundy National Park

DISEASE	EFFECT
Beech Canker (Leucostoma kunzei)	A European fungus that has caused widespread mortality of beech, and a drastic reduction in its abundance.
Anthracnose (Kabatiella apocrypta)	A fungal disease causing discolouration and death of maple leaves. Locally important in the Maple Grove area.
Needle Rust (Pucciniastrum epilobii)	A fungal disease affecting balsam fir. Locally important.
European Larch Canker (Lachnellula willkommii)	A fungal disease introduced from Europe, now spreading in New Brunswick. Very few larch in Fundy.
Birch Dieback	Disease causing severe mortality on both white and yellow birch. This disease was extreme in the 1930's and 40's and continues to be locally important.

Mammals - Browsing and grazing mammals, like deer, moose, hare, porcupine, and beaver, have had a dramatic effect on vegetation in Fundy National Park.

In a Parks Canada survey, Prescott (1975) found heavy browsing pressure in some parts of the Park. The chief trees affected were red maple, white birch, balsam fir, and yellow birch. In the deer winter range along the coast, browse availability was extremely low, although the situation was better on the upland sites. Heavy browsing pressure can change successional trends by reduction or elimination of a species in a stand. Undoubtedly the plant species mentioned above have been reduced in abundance because of the effects of browsing. In addition, heavy winter concentrations of deer along the coast have drastically slowed regeneration of woody species. A series of enclosures was established in 1976 to examine the effect of browsing. While the data from these have not yet been analyzed, the visual differences are dramatic.

Porcupine and beaver tend to have localized effects on vegetation, while deer and moose have a more widespread effect. Beaver populations were probably always low throughout the Park because of poor habitat. Their effects are localized to the few lakes and slow flowing streams on the highlands. Porcupines, on the other hand, are numerous. By stripping and killing trees, they create important openings in the forest around their winter denning sites. Such localized clearings help to create a forest mosaic with a resulting increase in species and age class diversity.

Climate - Climatic events have also caused changes in Fundy's forest. These mainly occur as severe winter storms that break branches, kill buds and cause extensive blowdown. By far the best known recent winter storm was the Groundhog Day Gale that occurred on February 2, 1976. This storm uprooted trees, caused heavy shoreline erosion, and carried salt spray several kilometers inland. Such storms can have a pronounced and long-term effect on vegetation.

Plants are affected by the Fundy coastal climate in many other ways. Trees that need a lot of summer heat, like butternut, red oak and hop hornbeam are absent from the Park. The cool, damp bayshore atmosphere is, however, ideal for lichens, and they flourish in every available habitat.

Wind is another important element affecting Fundy's forests. Because of the shallow rooting in Fundy's podzolic soils, blowdowns are common. This is especially true in forests weakened by budworm. A minor form of wind disturbance is found on exposed headlands and bluffs. In a few of these locations frequent and prolonged wind exposure has resulted in deformed and stunted trees.

Landslides - Along the steep sides of V-shaped valleys and coastal bluffs, erosion and minor landslides are commonplace. Many of these occurred long ago and whatever vegetation and debris slid down has long since disappeared. In some cases, vegetation has re-established, but often steepness and rapid runoff have kept these areas devoid of plants. Some landslides are recent and have left tangles of trees and debris on the valley bottoms. Examples of recent slides can be found in the Point Wolfe River and along Mile Brook where the brook is almost blocked by debris. Slides are also found along the Goose and Upper Salmon Rivers.

Human - Mankind has been influential in modifying Fundy's landscapes in many ways other than the obvious changes wrought by forestry practices. Old field conditions tend to favour white spruce and alders, and as farms in the area were abandoned from the 1870's onward, these species have increased in numbers. Land was cleared for cultivation and roads and settlements spread out from the river mouths starting in 1825. Today, the remains of wharves, dams, sawdust piles, collapsing stone foundations, and stone fences are scattered throughout the Park. More recent human disturbance has stemmed from the development of the National Park. Roads, campgrounds, numerous buildings, a golf course and other facilities were built, and extensive landscaping occurred in the Headquarters area.

Human activity has introduced many species of plants to the Park. These arrived through historical accident (e.g. hemp nettle, dandelion, coltsfoot), as calculated plantings by settlers (e.g. lilac, apple, rhubarb), or as ornamentals planted by the Park in formal plantings (e.g. flowering crabapple, Norway spruce, mugo pine).

Forestry - The dominant influence on Fundy's forest has been its history of logging. Virtually all of the Park's forest has been cut in the past, either for timber or to clear farmland.

Numerous mills were located throughout the area from 1826 to Park establishment in 1948. Even after Park establishment a small mill was maintained by the Park for its own purposes at Kinnie Brook, and trees were cut as late as 1965 to supply the Fortress of Louisbourg reconstruction.

Most lumbering was selective and done with horses, so its impact on soils was not great. However, some effects of logging remain to this day:

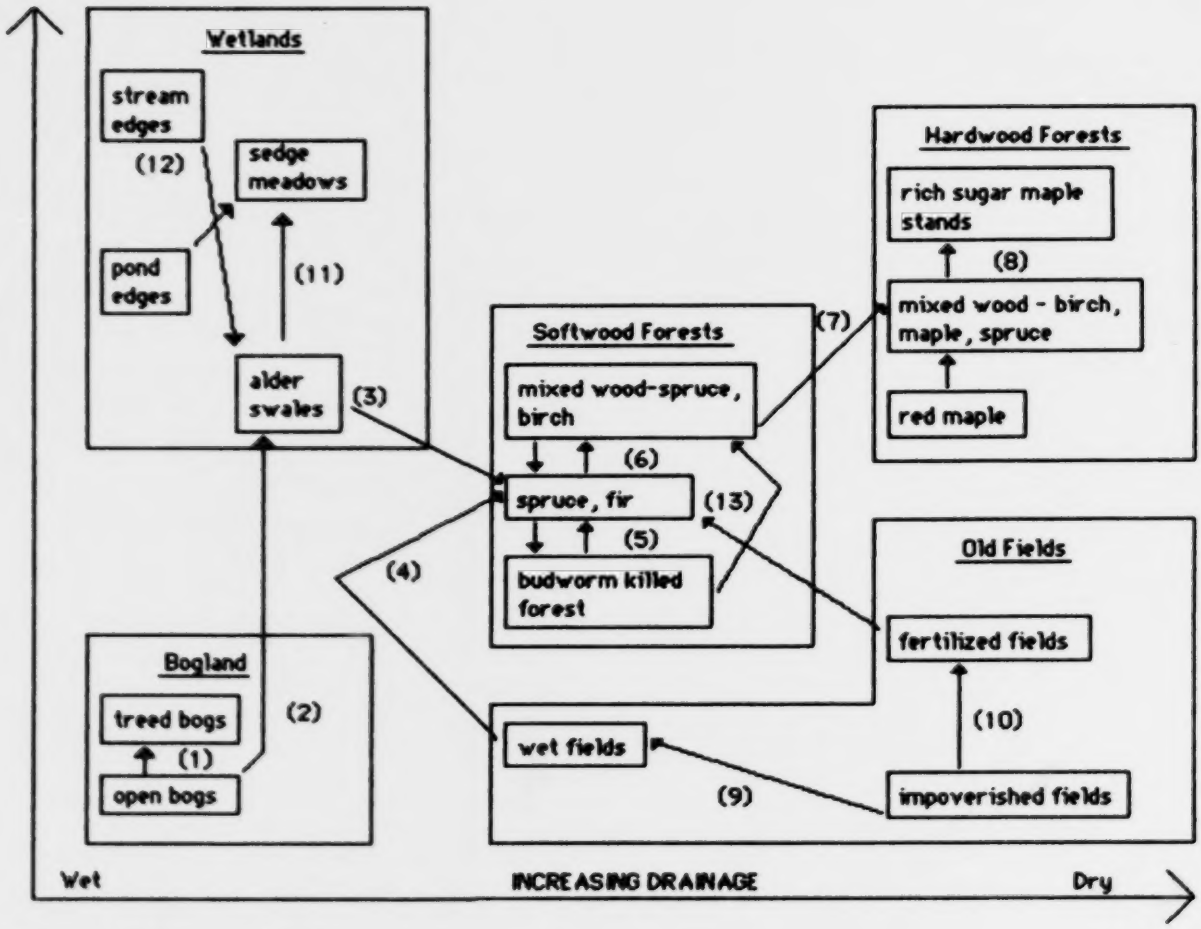
- White pine was reduced in abundance because it was such a valuable timber species.
- Clearcuts and old fields gave rise to dense, even-aged stands of spruce and fir. These stands proved highly attractive to the spruce budworm.
- Numerous clearings are present in the forest, the result of logging roads, camps, logging brows and stables. These clearings are often different from the surrounding forest, remaining open as fern glades or regenerating in young hardwoods.
- Most of Fundy's forest is second-growth, with trees generally less than 60 years old. This is a result of both forestry and spruce budworm activity.

SUCCESSIONAL TRENDS

Major successional trends in the Park were indicated in the Park's Integrated Resource Study (Hirvonen and Madill, 1978). An adapted version of that is given in Figure 3, also indicating gradients of drainage and fertility.

The major forest type in the successional model is the spruce fir forest or the Cornetum vegetation association. If left undisturbed, much of the Park would tend to develop into this kind of forest. However, the budworm acts as a periodic rejuvenating agent. Outbreaks of spruce budworm should occur every 30-50 years in this system.

Fundy's forests are dynamic, with insects, disease and browsers as the chief modifiers. It is thought that these agents will be sufficient to maintain Fundy's forests in a mosaic of age and condition classes that is characteristic of the natural region that it represents.



Major Successional Trends

1. Very acid bogs become drier, allowing trees to become established.
2. Bogs with some mineral seepage, alder grows in around edges.
3. Establishment of spruce cover if drainage improves.
4. Establishment of spruce and fir on old fields.
5. Budworm attack; trees die and are gradually replaced again with spruce and fir.
6. Slow increase in fertility, increase in abundance of birch.
7. With increased fertility, hardwood dominates stand (birch, maple).
8. Increased fertility and drainage produces a pure hardwood stand.
9. Spruce and fir seedlings and raspberries slowly invade nutrient poor fields.
10. Slow increase in fertility of field.
11. Alders invade sedge meadow.
12. Stream edges dry out, are not flooded annually and alders invade.
13. Old field invaded by spruce and fir.

Figure 3 Theoretical Successional Model for Vegetation in Fundy National Park (adapted from Hirvonen and Medill, 1976)

ANNOTATED LIST OF THE VASCULAR FLORA OF FUNDY NATIONAL PARK

HABITAT

The typical habitats in which various plants may be found in Fundy National Park are indicated, where known, with three-letter codes. These habitats are derived from field observation and collection data. A number of species are commonly found in more than one habitat type. Below is an explanation of the habitat designations:

Bog	Bogs, fens, and waterlogged soils.
Clf	Cliffsides along seacoast and rivers.
Dun	Dunes, gravelly upper beaches.
Flp	Floodplains, deep valley-bottom soils.
Hwd	Hardwood predominant forest stands.
Lak	Lakes and ponds, emergent and submergent vegetation.
Mix	Mixed forest.
Olf	Old fields and other man-made clearings.
Orn	Ornamental plantings (mainly in the Headquarters area).
Ovh	Overhangs and moist shaded cliffs.
Rds	Roadsides - disturbed gravelly soils, mowed areas.
Riv	Riversides - moist gravel soils, subject to flooding and ice scour.
Rgt	Ridgetops, well drained soils.
Sal	Salt marshes.
Swd	Softwood predominant forest stands.
Spr	Springs and seeps, wet meadows and ditches.
Val	Valley-sides, cool, moist, shaded by softwoods.

ABUNDANCE

Abundance, where known, is based on field observation and refers to the occurrence of a species within Fundy National Park. Two types of abundance are indicated, one for species **native** to the park area (**N**), and the other for **introduced** and naturalized species (**I**):

Nx	Extirpated within the park.
N1	Very rare, known from fewer than five park locations or specimens.
N2	Rare, restricted by habitat requirements.
N3	Uncommon, found only with difficulty within habitat type.
N4	Common, found without difficulty within habitat type.
N5	Ubiquitous, found without difficulty in a wide range of habitats.
Ix	Introduced and subsequently extirpated.
Ir	Introduced but rare, known from fewer than five locations or specimens.
Ic	Introduced and commonly found in appropriate habitat.
Iw	Introduced and well established, a "weed" species.
Rfnp	Listed as rare or unusual in Fundy National Park (Hinds, 1982).
Rnb	Listed as rare in New Brunswick (Hinds, 1983).
◊nb	Only known location in New Brunswick (Hinds, 1983).
◊ac	Only known location in Atlantic Canada (Hinds, pers. com.)
◊can	Only known location in Canada (Hinds, pers. com.)
µ	Known from Martin Head.

DOCUMENTATION

Unless indicated, all plants are represented by specimens in the Fundy National Park herbarium, otherwise the codes below indicate the degree to which a plant's occurrence within the park has been documented:

Hcm	Specimen(s) in Connell Memorial Herbarium, UNB Fredericton.
Hnb	Specimen(s) in New Brunswick Museum Herbarium, Saint John.
Hws	Specimen(s) in Canadian Wildlife Service Herbarium, Sackville.
Obs	Observed in park, but no herbarium specimen obtained.
Ptg	Photographed in park, but no herbarium specimen obtained.
?	Occurrence within park assumed but not confirmed.

Information about the non-vascular flora of Fundy National Park is contained in a number of published and unpublished lists and reports, and the park herbarium houses collections of lichens, mosses, and thalloid algae.

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PTERIDOPHYTES

	Hab.	Abn.	Doc.
EQUISETACEAE — Horsetail Family			
Equisetum arvense L. forma ramulosum (Rupr.) Klinge *branched field horsetail; prêle des champs*	Riv Spr	N3	
Equisetum sylvaticum L. *wood-horsetail; prêle des bois*	Spr	N3	
Equisetum sylvaticum L. var. pauciramosum Milde *wood-horsetail; prêle des bois*	Spr	N	
LYCOPODIACEAE — Clubmoss Family			
Lycopodium annotinum L. *bristly clubmoss; lycopode innovant*	Mix	N4	
Lycopodium clavatum L. *running or staghorn clubmoss; lycopode claviforme*	Hwd Olf	N4	
Lycopodium dendroideum (Michx.) D.C. = L. obscurum L. var. dendroideum (Michx.) D.C. *ground pine; lycopode foncé*	Mix	N	
Lycopodium digitatum A.Br. = L. complenatum L. var. flabelliforme Fern. = L. complenatum L. var. complenatum *ground cedar; lycopode aplati*	Hwd	N3	
Lycopodium inundatum L. *bog clubmoss; lycopode palustre*	Riv	N3	
Lycopodium lucidulum Michx. *shining clubmoss; lycopode brillant*	Hwd	N4	
Lycopodium obscurum L. *ground pine; lycopode foncé*	Mix	N4	
Lycopodium sabinaefolium Willd. *cedar-like clubmoss; lycopode à feuilles de genévrier*	Olf	N	Obs

	Hab.	Abn.	Doc.
Lycopodium selago L. *mountain or fir clubmoss; lycopode sélagine*	Clf	N2	Rfnp
Lycopodium tristachyum Pursh. *three-spiked clubmoss; lycopode à trois épis*	Swd	N3	

SELAGINELLACEAE — Selaginella Family

Selaginella selaginoides (L.) Link. *slender spikemoss, low selaginella; sélaginelle sélaginoïde*	Riv	N1	Rnb

ISOETACEAE — Quillwort Family

Isoetes echinospora Dur. = I. braunii Dur. *spinose-spored quillwort; isoète à spores épineuses*	Lak	N2	Hws

OPHIOGLOSSACEAE — Adder's Tongue Family

Botrychium virginianum (L.) Sw. *rattlesnake fern, Virginia grape-fern; botryche de Virginie*	Mix.	N1	Ptg

OSMUNDACEAE — "Flowering Fern" Family

Osmunda cinnamomea L. *cinnamon fern; osmonde cannelle*	Bog	N4	
Osmunda claytoniana L. *interrupted fern; osmonde de Clayton*	Riv	N4	
Osmunda regalis L. var. spectabilis (Willd.) Gray *royal fern; osmonde royale*	Riv	N3	

POLYPODIACEAE — Ferns (Incl. ASPLENIACEAE AND DENNSTAEDTIACEAE)

Asplenium viride Huds. *green spleenwort; asplénium vert*	Ovh	N1	Rnb
Athyrium filix-femina (L.) Roth. *lady-fern; athyrium fougère-femelle*	Fld Hwd	N3	

	Hab.	Abn.	Doc.
Athyrium thelypteroides . . . see Deparia acrostichoides			
Cystopteris bulbifera (L.) Bernh. *bulblet fern; cystoptéride bulbifére*	Ovh	N2	
Cystopteris fragilis (L.) Bernh. *fragile fern; cystoptéride fragile*	Ovh	N2	
Cystopteris fragilis (L.) Bernh. var. mackayi Lawson *fragile fern; cystoptéride fragile*	Ovh	N	
Dennstaedtia punctilobula (Michx.) Moore *hay-scented or boulder fern;* *dennstaedtia à lobules ponctués, fougère foin*	Olf	N4	
Deparia acrostichoides (Sw.) M.Kato = Athyrium thelypteroides (Michx.) Desv. *silvery spleenwort; athyrium fausse-thélyptéride*	Hwd	N3	
Dryopteris campyloptera (Kunze) Clarkson = D. spinulosa (O.F.Muell.) Watt var. americana (Fisch.) Fern. = D. austriaca (Jacq.) Woynar *spinulose shield-fern; dryoptéride spinuleuse*	Mix	N	
Dryopteris disjuncta . . . see Gymnocarpium dryopteris			
Dryopteris fragrans (L.) Schott var. remotiscula Komarov *fragrant cliff-fern; dryoptéride odorante*	Clf	$N2^{Rfnp}$	
Dryopteris intermedia (Willd..) Gray *intermediate woodfern; dryoptéride*	Mix	N	
Dryopteris marginalis (L.) Gray *marginal woodfern, evergreen shieldfern;* *dryoptéride marginale*	Mix Val	N4	
Dryopteris novaboracensis . . . see Thelypteris noveboracensis			
Dryopteris phegopteris . . . see Thelypteris phegopteris			
Dryopteris spinulosa (O.F.Muell.) Watt. *spinulose woodfern; dryoptéride spinuleuse*	Swd Mix	N5	
Gymnocarpium dryopteris (L.) Newman var disiunctum (Rupr.) Ching = Dryopteris disiuncta (Ledeb.) Mort. *oak fern; dryoptéride disjointe*	Flp	N3	

	Hab.	Abn.	Doc.
Matteuccia struthiopteris (L.) Todaro *ostrich or fiddlehead fern; matteuccie fougère-à-l'autruche*	Flp	N3	
Onoclea sensibilis L. *sensitive fern; onoclée sensible*	Spr	N4	
Polypodium virginianum L. *rock polypody; polypode de Virginie*	Clf	N3	
Polystichum acrostichoides (Michx.) Schott *Christmas fern; polystic faux-acrostic*	Hwd	N2	
Polystichum braunii (Spenner) Fee. ssp. purshii (Fern.) Calder & Taylor *Braun's holly fern; polystic de Braun*	Hwd Flp	N2	
Pteridium aquilinum (L.) Kuhn. var. latiusculum (Desv.) Underw. *bracken; ptéridium des aigles*	Mix	N3	
Thelypteris noveboracensis (L.) Nieuwl. = Dryopteris noveboracensis (L.) Gray *New York fern; dryoptéride de New York*	Mix Hwd	N3	
Thelypteris phegopteris (L.) Slosson = Dryopteris phegopteris (L.) C.Chr. *long beech fern; dryoptéride du hêtre*	Flp	N4	
Woodsia glabella R.Br. *smooth woodsia; woodsia glabre*	Ovh	$N2^{Rfnp}$	
Woodsia ilvensis (L.) R.Br. *rusty woodsia; woodsia de l'île d'Elbe*	Ovh	N2	

SPERMATOPHYTES-Gymnosperms

	Hab.	Abn.	Doc.
TAXACEAE — Yew Family			
Taxus canadensis Marsh. *dwarf or Canadian yew; if du Canada*	Val	N3	
PINACEAE — Pine Family			
Abies balsamea (L.) Mill. *balsam fir; sapin baumier*	Swd Mix	N5	
Larix laricina (DuRoi) K.Koch *tamarack, larch, hackmatack; violon, mélèze, laricin*	Bog	N3	
Picea abies (L.) Karst. *Norway spruce; épinette de Norvège*	Orn	Ic	Obs
Picea glauca (Moench) Voss *white, pasture, or cat spruce; épinette blanche*	Olf	N5	
Picea mariana (Mill.) B.S.P. *black or bog spruce; épinette noire*	Bog	N4	
Picea rubens Sarg. *red spruce; épinette rouge*	Swd Mix	N5	
Pinus banksiana Lamb. *jack pine; pin gris*	Orn	Ir	Obs
Pinus mugo Turra *mugo pine;*	Orn	Ic	Ptg
Pinus resinosa Ait. *red pine; pin résineux*	Swd Orn	N1 Ic	Ptg Obs
Pinus strobus L. *white pine; pin blanc*	Rgt	N4	

	Hab.	Abn.	Doc.
Pinus sylvestris L. *Scotch pine; pin sylvestre*	Orn	Ir	Obs
Tsuga canadensis (L.) Carr. *eastern hemlock; tsuga du Canada, pruche du Canada*	Val	N1	

CUPRESSACEAE — Juniper Family

Juniperus communis L. *common juniper; genévrier commun*	Olf	N4	
Juniperus horizontalis Moench *creeping juniper; genévrier horizontal*	Clf	N1	Obs
Thuja occidentalis L. *eastern white cedar, arborvitae; thuja occidental, cèdre blanc*	Orn	Ir	
	Riv	N1	
	Clf	N1	

SPERMATOPHYTES-Angiosperms

Monocotyledons

	Hab.	Abn.	Doc.
TYPHACEAE — Cat-tail Family			
Typha angustifolia L. *narrow-leaved cat-tail; typha à feuilles étroites*	Lak	N2	Ptg
SPARGANIACEAE — Bur-reed Family			
Sparganium chlorocarpum Rydb. *green bur-reed; rubanier à fruits verts*	Lak	N2	
Sparganium fluctuans (Morong) Robins *floating bur-reed; rubanier flottant*	Lak	N2	Hcm
ZOSTERACEAE (NAJADACEAE) — Eel-grass Family			
Ruppia maritima L. var. rostrata Agerdh *wigeon grass, sea grass; ruppie maritime*	Sal	N3	
POTAMOGETONACEAE — Pondweed Family			
Potamogeton alpinus Balbis *alpine pondweed; potamot alpin*	Lak	N4	
Potamogeton epihydrus Raf. *emersed pondweed; potamot émergé*	Lak	N4	

	Hab.	Abn.	Doc.

SCHEUTZERIACEAE (JUNCAGINACEAE) Arrow-grass Family

Scheutzeria palustrus L. ssp. americana (Fern.) Hulten *scheutzeria; scheutzérie palustre*	Bog	N	
Triglochin maritima L. *sea-side arrow-grass; troscart maritime*	Sal	N4	

ALISMACEAE (ALISMATACEAE) Water-plantain Family

Sagittaria graminea Michx. *grass-like arrow-leaf; sagittaire graminoïde*	Lak	N2	
Sagittaria latifolia Willd.. *broad arrow-leaf; sagittaire latifoliée*	Spr Lak	N3	

POACEAE (GRAMINAE) Grass Family

Agropyron repens (L.) Beauv. *couch-grass; agropyron rampant*	Dun	N	
Agropyron trachycaulum (Link.) Malte var. novae-angliae Scribr. *dog couch-grass; agropyron à chaumes rudes*	Riv	N2	
Agrostis stolonifera L. = A. alba L. *red-top; agrostis blanc, foin follette*		Ic	Obs
Agrostis scabra Willd. = A. hyemalis (Walt.) B.S.P. var. tenuis *bentgrass, tickle-grass; foin fou*	Olf	N5	
Alopecurus pratensis L. *meadow foxtail; vulpin des près*	Olf	N	
Ammophila breviligulata Fern. *marram grass; ammophile à ligule court*	Dun Olf	N3	Ptg
Anthoxanthum odoratum L. *sweet vernal grass; flouve odorante*	Olf	I	

	Hab.	Abn.	Doc.
Bromus ciliatus L. *ciliate brome grass; brome cilié*	Mix	N	
Calamagrostis canadensis (Michx.) Beauv. *blue joint, Canada reed-grass; calamagrostis du Canada*			Obs
Danthonia spicata (L.) Beauv. *wild oat-grass, poverty grass; danthonie à épi*	Olf	N	
Deschampsia flexuosa (L.) Trin. *hair grass; deschampsie flexueuse*	Clf Olf	N3	
Dichanthelium boreale (Nash) Freckmann = Panicum boreale Nash *boreal panic-grass; panic boréal*	Mix	N	
Elymus mollis Trin. = E. arenarius L. var. villosus Meyer *lyme-grass; seigle de mer, elyme des sables*	Dun	N5	
Glyceria borealis (Nash.) Batchelder *boreal manna-grass, float-grass; glycérie boréale*	Lak	N	Hws
Glyceria canadensis (Michx.) Trin. *rattlesnake or Canada manna-grass; glycérie du Canada*	Spr	N	Hcm
Glyceria grandis S.Wats. *reed meadow-grass, tall glyceria; glycérie géante*	Olf	N	
Glyceria striata (Lam.) Hitchc. *nerved manna-grass; glycérie striée*	Spr Riv	N	
Hierochloe odorata (L.) Beauv. *sweet grass; hiérochloé odorante, foin d'odeur*	Olf	N	
Hordeum jubatum L. *squirrel-tail grass; orge agréable*	Sal	Ic	
Oryzopsis pungens (Torr.) Hitchc. *mountain rice-grass; oryzopsis piquant*	Riv	N1[Rnb]	
Panicum boreale . . . see Dichanthelium boreale			
Phalaris arundinacea L. forma variegata (Purnell) Druce *ribbon grass, variegated reed canary-grass; ruban de la vierge*	Olf	Ir	Ptg

	Hab.	Abn.	Doc.
Phleum pratense L. *timothy; phléole des prés*	Olf	Iw	
Poa compressa L. *flat-stemmed meadow-grass; pâturin comprimé*	Olf	I	
Poa glaucantha Gaud. = P. glauca ssp. glaucantha *glaucous meadow-grass; pâturin glauque*		N^{Rnb}	Obs
Poa palustris L. *swamp meadow-grass; pâturin palustre*	Rds	N	
Poa pratensis L. *Kentucky bluegrass; pâturin des prés*	Orn	Iw	
Poa saltuensis Fern. & Wieg. *forest meadow-grass; pâturin sylvestre*	Mix	N4	
Puccinellia sp. *puccinellia; puccinellie*	Sal		Obs
Spartina alterniflora Loisel. *alternate flowered spartina; spartine alterniflore*	Sal	N4	
Spartina patens (Ait.) Muhl. *spreading spartina; spartine étalée*	Sal	N4	Obs
Spartina pectinata Link *pectinate spartina; spartine pectinée*	Sal	N4	

CYPERACEAE Sedge Family

Carex arctata Boott. compressed sedge; carex comprimé	Mix	N	
Carex brunnescens (Pers.) Poir. *brownish sedge; carex brunâtre*	Spr	N	
Carex capillaris L. ssp. capillaris = C. capillaris L. var. major Blytt. *hair-like sedge; carex capillaire*	Riv	N^{Rnb}	Obs
Carex caryophyllea Lat.	Olf	$I^{\diamond can}$	Hcm

	Hab.	Abn.	Doc.
Carex cephalantha (L.H.Bailey) Bickn. *large-headed sedge; carex en tête*	Dun	N	
Carex crawfordii Fern. *Crawford's sedge; carex de Crawford*	Spr	N	
Carex crinita Lam. *fringed sedge; carex crépu*	Spr Riv	N4	
Carex debilis Michx. var. rudgei Bailey *weak sedge; carex faible*	Swd	N	
Carex echinata Murr. *prickly sedge*	Bog	N	
Carex flava L. *yellow sedge; carex jaune*	Sal	N	
Carex intumescens Rudge *bladder sedge; carex gonflé*	Riv	N3	
Carex lanuginosa Michx. *wooly sedge; carez laineux*	Bog Spr	N	
Carex mackenzei Krecz. *MacKenzie's sedge; carex de MacKenzie*	Sal	N	Obs
Carex michauxiana Boeckl. *Michaux's sedge; carex de Michaux*	Bog	N	
Carex paleacea Wahl. *scaly sedge; carex pléacé*	Sal	N	
Carex pauperculа Michx. *stunted sedge; carex chétif*	Bog	N	
Carex salina Wahl. var. kattegatensis (Fries) Almq. *salt-marsh sedge; carex salin*	Sal	N3	
Carex scoparia Sch. *broom sedge; carex à balais*	Olf Spr	N	
Carex stipata Muhl. *stipitate sedge; carex stipité*	Olf Spr	N	

	Hab.	Abn.	Dec.
Carex torta Boott. *twisted sedge; carex tordu*	Riv	N4	
Carex tribuloides Wahl. *blunt broom-sedge; carex tribuloïde*	Sal	N3	
Eleocharis acicularis (L.) R. & S. *needle spike-rush; éléocharide aciculaire*	Lak	N3	
Eleocharis smallii Britt. = E. palustris (L.) R. & S. *Small's spike-rush; éléocharide de Small*	Lak	N1	Hcm
Eriophorum angustifolium Honcheny *narrow-leaved cotton-grass; linaigrette à feuilles étroites*	Bog	N4	
Eriophorum vaginatum L. ssp. spissum (Fern.) Hulten = E. spissum Fern. *bog cotton, dense cotton-grass, hare's tail; linaigrette dense*	Bog	N4	
Eriophorum virginicum L. *Virginia cotton-grass; linaigrette de Virginie*	Bog	N4	
Rhynchospora alba (L.) Vahl. *white beak-rush; rhynchospore blanc*	Bog		
Scirpus atrocinctus Fern. *black-girded wool-grass; scirpe à ceinture noire*	Lak Riv	N4	
Scirpus caespitosus L. *tufted club-rush; scirpe gazonant*	Bog	N	
Scirpus clintonii Gray *Clinton's club-rush; scirpe de Clinton*	Clf Ovh	N3	
Scirpus microcarpus Presl. = S. rubrotinctus Fern. *red-sheathed bulrush; scirpe à graines rouges*	Riv	N	

ARACEAE — Arum Family

Arisaema triphyllum (L.) Schott ssp. stewardsonii (Britt.) Huttleston = A. stewardsonii Britt. *jack-in-the-pulpit; ariséme de Stewardson*	Flp	N2	

	Hab.	Abn.	Doc.
Calla palustris L. *water arum, wild calla; calla des marais*	Lak	N4	

XYRIDACEAE Yellow-eyed-grass Family

Xyris montana Ries *yellow-eyed grass; xyris des montagnes*	Bog	N2	

ERIOCAULACEAE Pipewort Family

Eriocaulon septangulare With. *common or seven-angled pipewort; eriocaulon septangulaire*	Lak	N4	

JUNCACEAE Rush Family

Juncus balticus Willd.. *Baltic rush; jonc de la Baltique*	Sal	N4	
Juncus breviceudatus (Engelm.) Fern. *short-caudate rush; jonc brévicaudé*	Spr Bog	N3	
Juncus effusus L. var. compactus Hoppe *common rush; jonc épars*	Riv	N3	
Juncus effusus L. var. conglomeratus (L.) Engelm. *common rush; jonc épars*	Lak	N3	
Juncus filiformis L. *thread rush; jonc filiforme*	Riv Lak	N	
Juncus gerardi Loisel *black rush; jonc de Gérard*	Sal	N4	
Juncus pelocarpus E.Meyer *brown-fruited rush; jonc à fruits bruns*	Bog	N	
Juncus tenuis Willd. *slender rush; jonc ténu*	Olf Rds	N	
Juncus vaseyi Engelm. = J. greenei Oakes & Tuckerm. var. vaseyi Engelm. *Vasey's rush; jonc de Vasey*	Riv	N1^{Rfno}Hcm	

	Hab.	Abn.	Doc.
Luzula multiflora (Retz.) Lejeune ssp. frigida (Buch.) Krecz. *common woodrush; lazule multiflore*	Mix Flp	N	
Luzula parviflora (Ehrh.) Desv. ssp. melanocarpa (Michx.) Hamet & Ahti *small-flowered wood-rush. lazule parviflore*	Riv	$N1^{Rfnp}$	

LILIACEAE (Incl. AMARYLLIDACEAE) Lily Family

Clintonia borealis (Ait.) Raf. *blue-bead lily, clintonia; clintonie boréale*	Swd	N4	
Convallaria majalis L. *lily of the valley; muget*	Olf	Ir	
Erythronium americanum Ker.-Gawl. *trout lily; erythrone d'Amerique*	Hwd	N5	
Hemerocallis fulva (L.) L. *day lily; hémérocalle fauve*	Olf	Ic	
Lilium canadense L. *Canada lily; lis du Canada*	Rds	N1	Obs
Maianthemum canadense Desf. *wild lily-of-the-valley, Canada mayflower; maïanthème du Canada*	Swd	N5	
Medeola virginiana L. *Indian cucumber-root; médéole de Virginie*	Mix	N3	
Narcissus X incomparabilis Mill. (N. poeticus x N. pseudonarcissus) *daffodil; jonquil*	Olf	Ix	Ptg
Narcissus poeticus L. *poet's narcissus;*	Olf	Ir	
Polygonatum pubescens (Willd.) Pursh *hairy Solomon's-seal; sceau-de-Salomon pubescent*	Mix	N1	
Smilacina racemosa (L.) Desf. *false Solomon's-seal; smilacine à grappes*	Mix	N3	
Smilacina stellata (L.) Desf. *starry false-Solomon's-seal; smilacine étoilée*	Dun Olf	N3	

	Hab.	Abn.	Doc.
Smilacina trifolia (L.) Desf. *three-leaved false-Solomon's-seal; smilacine trifoliée*	Bog	N3	
Streptopus amplexifolius (L.) D.C. var. americanus Schultes *green twisted-stalk, white mandarin; streptope amplexicaule*	Riv Clf	N2	
Streptopus roseus Michx. var. perspectus Fassett *rose twisted-stalk; streptope rose*	Hwd	N4	
Trillium cernuum L. *nodding trillium; trille penché*	Flp	N1	Obs
Trillium erectum L. *purple trillium, wake-robin; trille dressé*	Hwd	N4	
Trillium undulatum Willd.. *painted trillium; trille ondulé*	Mix	N4	
Uvularia sessilifolia L. *sessile-leaved bellwort; uvulaire à feuilles sessiles*	Hwd	N1	Ptg

IRIDACEAE — Iris Family

Iris versicolor L. *blue-flag iris; iris versicolore*	Spr	N4	
Iris sp. *yellow iris;*	Olf	Ir	Obs
Sisyrinchium angustifolium Mill. *blue-eyed grass; bermudienne à feuilles étroites*	Olf	N4	

ORCHIDACEAE — Orchid Family

Arethusa bulbosa L. *arethusa; aréthuse bulbeuse*	Bog	Nx	Ptg
Corallorhiza maculata (Raf.) Raf. *spotted coralroot; corallorhize maculée*	Swd	N2	
Cypripedium acaule Ait. *pink lady's slipper, moccasin flower; cypripède acaule, sabot de la vierge*	Mix	N4	

	Hab.	Abn.	Doc.
Cypripedium acaule Ait. forma albiflorum Rand & Redf. *white lady's slipper; sabot de la vierge (blanc)*	Mix	N3	
Goodyera repens (L.) R.Br. *creeping rattlesnake plantain; goodyérie rampante*	Swd	N1	
Habenaria = Platanthera			
Listera auriculata Wieg. *auriculate twayblade; listère auriculée*	Riv	N1	Ptg
Malaxis unifolia Michx. *green adder's mouth; malaxis unifolié*	Olf	N1	Ptg
Platanthera clavellata (Michx.) Luer *small green woodland orchid; habenaire claviforme*	Spr	N3	
Platanthera dilatata (Pursh.) Lindl. *leafy white orchid, white bog orchid; habénaire dilatée*	Riv	N4	
Platanthera hyperborea (L.) Lindl. *northern green orchid; habénaire hyperboréale*	Riv Rds	N2	
Platanthera lacera (Michx.) G.Don *ragged fringed orchid; habénaire lacérée*	Olf	N4	
Platanthera orbiculata (Pursh.) Lindl. *round-leaf orchid; habénaire à feuilles orbiculaires*	Swd	N1	
Platanthera psychodes (L.) Lindl. *purple-fringed orchid; habénaire papillon*	Riv	N4	
Pogonia ophioglossoides (L.) Juss. *rose pogonia; pogonie langue-de-serpent*	Bog	Nx	
Spiranthes lacera (Raf.) Raf. *cleft or slender lady's-tresses; spiranthe decoupée*	Olf	N4	

Dicotyledons

	Hab.	Abn.	Doc.
SALICACEAE — Willow Family			
Populus balsamifera L. *balsam poplar; peuplier baumier*	Olf	Ir	
Populus grandidentata Michx. *Large-toothed aspen; peuplier à grandes dents*	Hwd	N3	
Populus nigra L. *Lombardy poplar; peuplier noir*	Orn	Ir	
Populus tremuloides Michx. *trembling aspen; peuplier faux-tremble*	Hwd	N3	
Salix bebbiana Sarg. *beaked willow, Bebb's willow; saule de Bebb*	Olf Riv	N	
Salix discolor Muhl. *pussy-willow; saule discolore*	Riv	N	
Salix humilis Marsh. *small pussy-willow, bush willow; saule humble*	Rds	N	
Salix pellita Anderss. *silky willow; saule satinée*	Olf	N	
Salix petiolaris Sm. = S. gracilis Anderss. *stalked willow; saule pétiolé*	Riv	N	
Salix sericea Marsh. *satiny willow; saule soyeux*	Riv	N	
MYRICACEAE — Sweet-gale Family			
Comptonia peregrina (L.) Coulter *sweet-fern; comptonie voyageuse*	Rds	N3	
Myrica gale L. *sweet-gale; myrique baumier*	Riv	N3	

	Hab.	Abn.	Doc.
Myrica pensylvanica Loisel. *bayberry; cirier de Pennsylvanie*	Olf	Ir	

BETULACEAE (CORYLACEAE) Birch Family

Alnus crispa . . . see A. viridis			
Alnus incana (L.) Moench ssp. rugosa (DuRoi) Claussen = A. rugosa (DuRoi) *speckled alder; aulne rugueux*	Olf Flp	N5	
Alnus rugosa . . . see A. incana			
Alnus viridis (Chaix) D.C. ssp.crispa (Ait.) Turrill = A. crispa (Ait.) *green alder; aulne crispé*	Olf Clf	N3	
Betula alleghaniensis Britt. *yellow or golden birch; bouleau jaune, mérisier*	Hwd Mix	N5	
Betula papyrifera Marsh. *white, canoe, or paper birch; bouleau à papier, bouleau blanc*	Hwd	N3	
Betula populifolia Marsh. *gray or wire birch; bouleau gris, bouleau à feuilles de peuplier*	Hwd Mix	N5	
Corylus cornuta Marsh. *beaked hazel; noisetier à long bec*	Hwd	N3	

FAGACEAE Beech Family

Fagus grandifolia Ehrh. *beech; hêtre à grandes feuilles*	Hwd	N3	Ptg
Quercus sp. *oak; chêne*	Orn	Ir	Obs

ULMACEAE Elm Family

Ulmus americana L. *American elm; orme d'Amérique*	Flp	N1	Obs

	Hab.	Abn.	Doc.
MORACEAE (CANNABINACEAE) Hemp Family			
Humulus lupulus L. *hops; houblon*	Olf	Ir	
LORANTHACEAE Mistletoe Family			
Arceuthobium pusillum Peck *black-spruce or dwarf mistletoe; arceuthobie naine, faux gui*	Bog	N2	
POLYGONACEAE Buckwheat Family			
Polygonum cilinode Michx. *climbing buckwheat, fringed bindweed; renouée à noeuds ciliés*	Olf	N3	
Polygonum convolvulus L. *corn bindweed; renouée liseron*	Olf Rds	Ic	
Polygonum cuspidatum Selb. & Zucc. *Japanese knotweed, Japanese bamboo; renouée japonaise*	Rds	Ir	
Polygonum persicaria L. *smartweed, lady's thumb; renouée persicaire, poivre d'eau*	Spr	Ic	
Polygonum sagittatum L. *arrow-leaved tear-thumb; renouée sagitée*	Olf Spr	N3	
Rheum rhaponticum L. *rhubarb; rhubarbe*	Olf	Ic	Ptg
Rumex acetosella L. *sheep or field sorrel, sour grass; rumex petit oseille*	Olf	Iw	
Rumex crispus L. *curled dock; rumex crépu*	Olf	Iw	
Rumex longifolius D.C. = R. domesticus Hartm. *long-leaved dock; rumex à longues feuilles*	Rds	I	
Rumex triangulivalvis (Danser.) Rech.f. = R. salicifolius Weinm. ssp. triangulivalvis Danser. *willow-leaved dock; rumex à feuilles de saule*	Rds		

	Hab.	Abn.	Doc.
CHENOPODIACEAE — Goosefoot Family			
Atriplex prostrata Boucher *orach; arroche des champs*	Dun	N2	
Chenopodium album L. *lamb's-quarters, goosefoot; chénopode blanc*	Rds	N3	
Salicornia europaea L. *samphire, sandfire greens, glasswort; salicorne d'Europe*	Sal	N4	
Sueeda maritima (L.) Dumort. *sea blite; suéda maritime*	Sal	N3	Obs
PORTULACACEAE — Purselane Family			
Claytonia caroliniana Michx. *spring beauty; claytonie de caroline*	Hwd	N5	
CARYOPHYLLACEAE — Chickweed Family			
Arenaria lateriflora . . . see Moehringia lateriflora			
Cerastium fontanum Baung. ssp. triviale (Link) Gelas = C. vulgatum L. *mouse-eared chickweed; céraiste vulgaire*	Olf	N4	
Dianthus armeria L. *Deptford pink; oeillet arméria*	Rds	Ir	
Lychnis alba . . . see Silene alba			
Lychnis chalcedonica L. *scarlet lychnis, Maltese cross; lychnide de Chalcédonie*	Olf	Ir	
Lychnis dioica . . . see Silene dioica			
Moehringia lateriflora (L.) Fenzl = Arenaria lateriflora L. *sandwort; sabline latériflore*	Spr Olf	N3	
Sagina procumbens L. *procumbent pearlwort; sagine couchée*	Riv	Ic	

	Hab.	Abn.	Doc.
Silene alba (Mill.) Krause = Lychnis alba Mill. *white campion; silène blanc*	Dun	Ir	Ptg
Silene dioica (L.) Clairville = Lychnis dioica L. *red campion; silène rouge*	Rds	Ir	
Silene vulgaris (Moench) Garcke = S. latifolia (Mill.) Br.&R. *bladder campion; silène à feuilles larges*	Olf	Ic	
Spergula arvensis L. *spurrey; spargoute des champs*	Rds Olf	Ic	
Spergularia marina (L.) Griseb. *marine sand-spurrey; spergulaire marine*	Dun	N3	
Spergularia rubra (L.) J.C.Presl. *sand spurrey; spergulaire rouge*	Olf	Ic	
Stellaria graminea L. *lesser stitchwort; stellaire graminoïde*	Olf	Ic	
Stellaria humifusa Rottb. *low stitchwort; stellaire déprimé*	Sal	N4	

NYMPHAEACEAE — Water-lily Family

Brasenia schreberi Gmel. *water shield; brasénie de Schreber*	Lak	N4	
Nuphar luteum (L.) Sibth.& Sm. ssp. pumilum (Timm) Beal = N. microphyllum (Pers.) Fern. *small pond lily; nénuphar à petites feuilles*	Lak	N	Hws
Nuphar luteum (L.) Sibth.& Sm. ssp. variegatum (Bur.) Beal = N. variegatum Engelm. *yellow pond lily, cow lily; nénuphar à feuilles panachées*	Lak	N4	

RANUNCULACEAE — Buttercup Family

Aconitum napellus L. *aconite, monkshood; aconit*	Olf	Ir	

	Hab.	Abn.	Doc.
Actaea pachypoda Ell. *white baneberry, doll's-eyes; actée à gros pédicelles*	Flp	N3	
Actaea rubra (Ait.) Willd. *red baneberry; actée rouge*	Flp	N3	
Anemone quinquefolia L. *wood anemone; anémone à cinq folioles*	Flp	N3	
Aquilegia vulgaris L. *purple or garden columbine; ancolie vulgaire*	Olf	Ir	
Clematis occidentalis (Hornem.) D.C. = C. verticillaris D.C. *purple or mountain clematis; clématie verticillée*	Clf	$N1^{Rfnp}$	
Clematis virginiana L. *virgin's bower; clématie de Virginie*	Riv	N3	Ptg
Coptis trifolia (L.) Salisb. ssp. groenlandica (Oeder) Hulten *goldthread; coptide de Groenland, savoyane*	Swd	N4	
Delphinium sp. *delphinium*	Olf	Ir	Ptg
Ranunculus abortivus L. *wood buttercup; renoncule abortive*	Spr	N3	
Ranunculus acris L. *tall buttercup; renoncule âcre*	Olf	N4	
Ranunculus cymbalaria Pursh. *sea-shore buttercup; renoncule cymbalaire*	Sal	N2	
Ranunculus recurvatus Poir. *hooked buttercup; renoncule recourbée*	Mix	N	
Ranunculus repens L. var. glabratus D.C. *creeping buttercup, crowfoot; renoncule rampante*	Spr	N4	
Ranunculus reptans L. *spearwort; renoncule rampante*	Lak	N2	
Thalictrum pubescens Pursh. = T. polygamum Muhl. *meadow rue; pigamon pubescent*	Spr	N4	

	Hab.	Abn.	Doc.
Trollius europaeus L. *globeflower; trolle*	Olf	Ix	

BERBERIDACEAE — Barberry Family

Berberis thunbergii D.C. *Japanese barberry; vignettier de Thunberg*	Orn	N1	

PAPAVERACEAE (FUMARIACEAE) — Poppy Family

Corydalis sempervirens (L.) Pers. *pale corydalis; corydale toujours verte*	Clf	N1	
Dicentra cucullaria (L.) Bernh. *dutchman's breeches; dicentre à capuchon*	Hwd Flp	N4	

BRASSICACEAE (CRUCIFERAE) — Mustard Family

Barbarea vulgaris R.Br. *yellow rocket; barbarée vulgaire*	Olf	Ic	
Cakile edentula (Bigel.) Hook. *sea rocket; coquillier édentulé*	Dun	N3	
Capsella bursa-pastoris (L.) Medic. *shepherd's purse; capselle bourse-à-pasteur*	Rds	Ic	
Cardamine pensylvanica Muhl. *bitter-cress; cardamine de Pennsylvanie*	Riv	N3	
Dentaria diphylla Michx. *toothwort; dentaire à deux feuilles*	Spr Mix	N3	
Draba arabisans Michx. *draba; drave*	Clf	$N2^{\mu Rnb}$	
Draba verna . . . see Erophila verna			
Erophila verna (L.) Chev. ssp. praecox (Steven) Walters = Draba verna L. var. boerhaavii VanHall *Whitlow -grass; drave printanière*	Olf	$Ir^{\diamond ac}$	

	Hab.	Abn.	Dec.
Erysimum cheiranthoides L. *wormseed mustard; vélar giroflée*	Olf	I	
Hesperis matronalis L. *dame's rocket; julienne des dames*	Olf	Ix	Obs
Raphanus raphanistrum L. *wild radish; radis sauvage*	Olf	I	
Thlaspi arvense L. *field penny-cress; thlaspi des champs*	Rds Olf	I	

SARRACENIACEAE — Pitcher-plant Family

Sarracenia purpurea L. *pitcher plant; sarracénie pourpre, oreilles de cochon*	Bog	N3	

DROSERACEAE — Sundew Family

Drosera intermedia Hayne *narrow-leaf sundew; rossolis intermédiaire*	Bog	N3	
Drosera rotundifolia L. *round-leaf sundew; rossolis à feuilles rondes*	Bog Riv	N4	

CRASSULACEAE — Orpine or Sedum Family

Sedum purpureum (L.) Schultes *orpine, live-forever, rockrose; orpin pourpre*	Olf	Ic	
Sedum rosea (L.) Scop. *roseroot; orpin rose*	Clf Ovh	N3	

SAXIFRAGACEAE — Saxifrage Family

Chrysosplenium americanum Schwein. *watermat, golden saxifrage; dorine d'Amerique*	Spr	N3	
Mitella nuda L. *naked mitrewort; mitelle nue*	Spr	N2	

	Hab.	Abn.	Doc.
Ribes americanum Mill. *black currant; gadellier Américain*	Olf	N3	
Ribes glandulosum Grauer *skunk currant, foetid currant; gadellier glanduleux*	Mix	N4	
Ribes hirtellum Michx. *smooth gooseberry; groseillier hérisée*	Olf Clf	N3	
Saxifrage paniculata P.Mill. = S. aizoon var. neogaea *livelong saxifrage; saxifrage paniculée*	Clf	$N2^{Rnb}$	
Tiarella cordifolia L. *false mitrewort, foam-flower; tiarelle cordifoliée*	Spr	N3	Ptg

ROSACEAE — Rose Family

Agrimonia striata Michx. *striate agrimony; aigremoine striée*	Mix	N	
Amelanchier arborea (Michx. f.) Fern. var. laevis (Wieg.) Ahles = A. laevis Wieg *glabrous shadbush; amélanchier glabre*		N	Obs
Amelanchier bartramiana (Tausch.) Roemer *Bartram's shadbush; amélanchier de Bartram*		N	Obs
Amelanchier stolonifera Wieg *stoloniferous shadbush;* *amélanchier stolonifère, petites poires*	Riv	N2	
Crataegus chrysocarpa Ashe = C. rotundifolia Moench. *round-leaved hawthorn; aubépine à feuilles rondes*	Riv	N1	
Crataegus flabellata (Bosc.) Koch *fan-shaped hawthorn; aubépine flabelliforme*	Riv	N1	
Dalibarda repens L. *dewdrop, false violet; dalibarde rampante*	Mix	N	Obs
Filipendula ulmaria (L.) Maxim. *queen of the meadow; reine des prés*	Olf	Ir	

	Hab.	Abn.	Doc.
Fragaria virginiana Duchesne *wild strawberry; fraisier des champs*	Olf Rds	N5	
Geum macrophyllum Willd. *large-leaved avens; benoîte à grandes feuilles*	Flp Spr	N3	
Geum rivale L. *water avens, purple avens, chocolate flower; benoîte des ruisseaux*	Olf Spr	N3	
Malus sylvestris (L.) P.Mill. = Pyrus malus (L.) *apple; pommier*	Olf	Ic	Ptg
Potentilla anserina L. *silver-leaf; potentille ansérine*	Sal	N3	
Potentilla fruticosa L. *shrubby cinquefoil; potentille frutescente*	Clf Orn	N1 Ic	Obs Obs
Potentilla norvegica L. *rough cinquefoil; potentille de Norvège*	Olf	I	
Potentilla recta L. *erect cinquefoil; potentille dressée*	Olf	I	
Potentilla simplex Michx. var. calvescens Fern. *common cinquefoil; potentille simple*	Olf Rds	N4	
Potentilla tridentata (Soland) Ait. *three-leaved or three-toothed cinquefoil; potentille tridentée*	Clf Rds	N3	
Prunus pensylvanica L.f. *pin-cherry; cerisier de Pennsylvanie*	Olf	N3	
Prunus virginiana L. *choke-cherry; cerisier de Virginie*	Olf	N3	Ptg
Pyrus malus . . . see Malus sylvestris			
Rosa caroline L. *pasture rose; rosier de Caroline*	Rds	N	
Rosa cinnamomea L. *cinnamon rose; rosier cannelle*		I	

	Hab.	Abn.	Doc.
Rosa gallica L. *gallic rose; rose gallois*	Olf	I	
Rosa nitida Willd. *shining rose; rosier brillante*	Lak Bog	N	
Rosa rugosa Thunb. *rough rose; rosier rugueux*		I	Obs
Rosa virginiana Miller *common wild rose; rosier de Virginie*	Olf	N	
Rubus allegheniensis Porter *common blackberry; ronce alléghanienne, mûrier*	Olf Rds	N4	Ptg
Rubus chamaemorus L. *cloudberry, bog-apple, bakeapple; ronce petit-mûrier, plaquebières*	Bog	N3	
Rubus pubescens Raf. *dewberry; ronce pubescente*	Riv	N3	
Rubus strigosus Michx. *wild raspberry; framboisier*	Mix Olf	N5	Ptg
Sanguisorba canadensis L. *bottlebrush, Canada burnett; sanguisorbe du Canada*	Olf	$N2^{Rnb}$	
Sorbus americana Marsh. *mountain ash; sorbier d'Amerique, cormier*	Clf	N3	
Sorbus aucuparia L. *rowan, European mountain-ash; sorbier des oiseaux*	Orn	Ir	Obs
Spiraea latifolia (Ait.) Borkh. *meadow-sweet; spirée à larges feuilles*	Olf	N4	
Spiraea tomentosa L. *steeplebush, hardhack; spirée tomentose*	Olf	N4	
Spiraea X vanhouttei (Broit) Zabel (cantoniensis x trilobata)	Orn	Ir	

	Hab.	Abn.	Doc.
FABACEAE (LEGUMINOSAE) Bean Family			
Caragana arborescens Lam. *Siberian pea tree;*	Orn	Ir	Obs
Lathyrus japonicus Willd. = L. maritimus (L.) Bigel. *beach pea; pois de mer*	Dun	N4	
Lathyrus palustris L. var. pilosus (Cham.) Ledeb. *marsh pea; gesse palustre*	Dun Spr	N1	
Lotus corniculatus L. *bird's-foot trefoil; lotier corniculé ou pied de poule*	Rds	Ir	Obs
Lupinus polyphyllus Lindl. *garden lupin; lupin polyphylle*	Rds	Ir	Ptg
Medicago lupulina L. *black medick; luzerne lupuline*	Olf	I	
Melilotus alba Desv. *white sweet-clover; mélilot blanc*	Rds	Ic	Obs
Melilotus officinalis (L.) Pallas *yellow sweet-clover; mélilot officinal*	Rds	Ir	
Trifolium aureum Pollich = T. agrarium L. *yellow or hop clover; trèfle agraire*	Rds	Iw	
Trifolium arvense L. *rabbit-foot clover; trèfle des champs*	Rds	Iw	
Trifolum dubium Sibth. *little hop-clover; trèfle douteux*	Rds	Iw	
Trifolium repens L. *white clover; trèfle rampant, trèfle blanc*	Olf	Iw	
Trifolium pratense L. *red clover; trèfle rouge, trèfle des prés*	Olf	Iw	
Vicia cracca L. *tufted, purple, or cow vetch; vesce jargeau*	Rds Olf	Iw	

	Hab.	Abn.	Doc.
Vicia sativa L. ssp. nigra (L.) Ehrh. = V. angustifolia (L.) Reichard *narrow-leaved vetch; vesce à feuilles étroites*		I	Obs

OXALIDACEAE — Wood-sorrel Family

Oxalis acetosella L. = O. montana Raf. *wood sorrel; oxalide des montagnes*	Swd Mix	N4	
Oxalis stricta L. *yellow or lady's sorrel; oxalide dressée*	Rds	Ic	

GERANIACEAE — Geranium Family

Geranium robertianum L. *herb robert; géranium de Robert*	Olf Spr	Ir	

CALLITRICHACEAE — Water-starwort Family

Callitriche sp. *water starwort; callitriche*	Lak	N3	

EMPETRACEAE — Crowberry Family

Empetrum nigrum L. *black crowberry; camarine noire*	Clf Bog	N2	

ANACARDIACEAE — Sumac Family

Rhus typhina L. *staghorn sumac; sumac vinaigrier*	Orn	Ir	
Toxicodendron rydbergii (Small) Greene = Rhus radicans L. var. rydbergii (Small) Rehder. *poison ivy; herbe à la puce*	Clf	N2	

AQUIFOLIACEAE — Holly Family

	Hab.	Abn.	Doc.
Nemopanthus mucronatus (L.) Trel. *mountain holly; némopanthe mucronée*	Bog	N4	

ACERACEAE — Maple Family

Acer pensylvanicum L. *moose or striped maple; érable de Pennsylvanie, bois d'orignal, bois barré*	Mix Val	N4	
Acer platanoides L. *Norway maple; érable platanoïde*	Orn	Ir	Obs
Acer rubrum L. *red maple; érable rouge*	Hwd Mix	N5	
Acer saccharum Marsh. *sugar maple; érable à sucre*	Hwd Mix	N4	
Acer spicatum Lam. *mountain maple; érable à épis*	Mix Olf Val	N4	

BALSAMINACEAE Impatiens or Touch-me-not Family

Impatiens capensis Meerb. *spotted touch-me-not or jewelweed; impatiente du Cap, balsamine*	Riv Rds	N3	

VITACEAE — Grape Family

Parthenocissus quinquefolia (L.) Planch. *Virginia creeper; parthénocisse à cinq folioles*	Olf	Ir	

MALVACEAE — Mallow Family

Malva moschata L. *musk mallow; mauve musquée*	Olf	Ix	

	Hab.	Abn.	Doc.
CLUSIACEAE (HYPERICACEAE) (GUTTIFERAE) — St. John's-wort Family			
Hypericum canadense L. *Canada St. John's-wort; millepertuis du Canada*	Olf Spr	N3	
Hypericum elliptícum Hook. *pale St. John's-wort; millepertuis élliptique*	Spr Lak	N3	
Hypericum perforatum L. *common St. John's-wort; millepertuis commum*	Olf Riv	N4	
Triadenum virginicum (L.) Raf. = Hypericum virginicum L. *Virginia St. John's-wort; millepertuis de Virginie*	Bog	N3	
VIOLACEAE — Violet Family			
Viola incognita Brainerd *large-leaved or sweet white-violet; violette méconnue*	Spr	N4	
Viola labradorica Schrank. *alpine or Labrador violet; violette du Labrador*		N	Obs
Viola macloskeyi Lloyd ssp. pallens (Banks) M.S.Baker = V. pallens (Banks) Brainerd *northern white-violet; violette pâle*	Olf	N4	
Viola obliqua Hill = V. cucullata Ait. microtitis Brainerd *marsh blue-violet; violette cucullée*	Spr	N4	
Viola pubescens Ait. var. leiocarpa (Fern. & Wieg.) Seymour = V. pensylvanica Michx. var. leiocarpa (Fern. & Wieg.) *yellow violet; violette de Pennsylvanie*	Flp	N2	
Viola septentrionalis Greene *northern blue-violet; violette septentrionale*	Spr Riv	N3	
ONAGRACEAE — Evening-primrose Family			
Circaea alpina L. *small enchanter's-nightshade; circée alpine*	Spr	N4	

	Hab.	Abn.	Dec.
Epilobium angustifolium L. *fireweed, great willow-herb;* *épilobe à feuilles étroites, bouquets rouges*	Olf Rds Clf	N4	
Epilobium ciliatum Raf. ssp. ciliatum = E. adenocaulon Haussk. *willow-herb;*	Rds	N4	
Epilobium ciliatum Raf. ssp. glandulosum (Lehm.) Hock & Raven = E. glandulosum Lehm. *glandular or northern willow-herb; épilobe glanduleux*	Olf	N1	
Epilobium hornemanni Rchb. = E. alpinum L. var. natans *Hornemann's willow-herb; épilobe de Hornemann*	Riv Spr	N1[Rfnp]	
Epilobium leptophyllum Raf. *narrow-leaved willow-herb; épilobe à feuilles étroites*	Bog	N2	
Oenothera biennis L. *evening-primrose; onagre commune, onagre bisannuelle*	Olf Rds	N4	
Oenothera grandiflora Ait. *large-flowered evening-primrose; onagre à grandes fleurs*	Olf	[illegible]	Obs
Oenothera perennis L. *sundrops; onagre perennante*	Olf	N4	
HALORAGIDACEAE Water-milfoil Family			
Myriophyllum tenellum Bigel.	Lak	N1	Hnb
HIPPURIDACEAE Mare's-tail Family			
Hippuris vulgaris L. *mare's tail; hippuride vulgaire*	Lak	N3	Obs
ARALIACEAE Ginseng Family			
Aralia hispida Vent. *bristly aralia; aralie hispide*	Olf	N3	
Aralia nudicaulis L. *wild sarsaparilla; aralie à tige nue, salsepareille*	Swd Mix Olf	N5	

	Hab.	Abn.	Doc.
Aralia racemosa L. *spikenard, Indian root; aralie à grapes*	Hwd	N2	
Panax trifolius L. *dwarf ginseng; ginseng à trois folioles*	Spr Swd	N2	

APIACEAE (UMBELLIFERAE) Carrot Family

Aegopodium podagraria L. *goutweed; égopode podagraire*	Olf	Ir	
Angelica lucida L. = Coelopleurum lucidum (L.) Fern. *seaside angelica; céloplèvre brillante*	Dun	N3	Obs
Anthriscus sylvestris (L.) Hoffm. *wild chervil; anthrisque des bois*	Olf	Ir	
Carum carvi L. *caraway; carvi commun*	Olf	Ir	
Cicuta maculata L. *water hemlock; cigue maculé, cicutaire maculée*	Spr	N	
Coelopleurum lucidum . . . see Angelica lucida			
Conioselinum chinense (L.) B.S.P. *hemlock parsley; coniosélinum de Genesee*	Spr	N	
Heracleum lanatum Michx. = H. maximum Bartr. *cow-parsnip; berce très grand*	Flp Spr	N4	
Hydrocotyle americana L. *water pennywort; hydrocotyle d'Amérique*	Spr	N2	
Ligusticum scothicum L. *Scotch lovage; livèche écossaise, persil de mer*	Dun	N3	
Osmorhiza claytoni (Michx.) C.B.Clarke *hairy sweet-cicely, sweet jarvil, osmorhize de Clayton*	Riv	N3	
Sanicula marilandica L. *black sanicle or snakeroot; sanicle du Maryland*	Riv Swd	N2	
Sium suave Walt. *water parsnip; berle douce*	Spr	N	Obs

	Hab.	Abn.	Doc.
CORNACEAE — Dogwood Family			
Cornus alternifolia L.f. *alternate-leaved dogwood; cornouiller à feuilles alternes*	Mix	N3	
Cornus canadensis L. *bunchberry, Canada dogwood; cornouiller du Canada*	Swd Mix	N5	
Cornus sericea L. ssp. sericea = C. stolonifera Michx. *red osier dogwood; cornouiller stolonifère*	Riv	N4	
ERICACEAE (Incl. PYROLACEAE) — Heath Family			
Andromeda polifolia L. var. glaucophylla (Link) D.C. = A. glaucophylla Link *bog rosemary; andromède glauque*	Lak	N2	
Chamaedaphne calyculata (L.) Moench. var. angustifolia (Ait.) Rehd. *leatherleaf; cassandre caliculé*	Lak Bog	N4	
Chimaphila umbellata (L.) Bart. ssp. cisatlantica (Blake) Hulten *prince's pine, pipsissewa, waxflower;* *chimaphile à ombelles, herbe à clé*			Obs
Epigaea repens L. *mayflower, trailing arbutus; epigée rampante, fleur de mai*	Rgt Val	N3	
Gaultheria hispidula (L.) Muhl. *creeping snowberry, teaberry; gaulthérie hispide, petit thé*	Swd	N4	
Gaultheria procumbens L. *wintergreen, teaberry, checkerberry;* *gaulthérie couchée, thé des bois*	Swd	N3	
Gaylussacia baccata (Wang.) K.Koch *black huckleberry; gaylussaccia à fruits bucciformes*	Rgt	N	
Gaylussacia dumosa (Andr.) T. & G. var bigeloviana Fern. *bog or dwarf huckleberry; gaylussaccia touffu*	Bog	N	
Kalmia angustifolia L. *sheep laurel, lambkill; kalmia à feuilles étroites*	Bog Rds	N3	

	Hab.	Abn.	Doc.
Kalmia polifolia Wang. *bog laurel; kalmia à feuilles d'andromède*	Bog	N4	
Ledum groenlandicum Oeder. *Labrador tea; thé du Labrador, lédon du Groënland*	Bog	N4	
Moneses uniflora (L.) A.Gray *one-flowered pyrola or wintergreen; monésès uniflore*	Swd	N1	
Monotropa uniflora L. *Indian pipe; monotrope uniflore*	Swd	N4	
Orthilia secunda L. ssp. secunda (L.) House = Pyrola secunda L. *one-sided pyrola; pyrole unilatérale*	Swd	N	
Pyrola americana Sweet = P. rotundifolia L. var. americana (Sweet) Fern. *round-leaved pyrola; pyrole à feuilles rondes*	Swd	N3	
Pyrola chlorantha Sw. = P. virens Schw. *greenish-flowered pyrola; pyrole à fleurs verdâtres*	Mix	N	
Pyrola elliptica Nutt; *shinleaf; pyrole elliptique*	Swd Olf	N3	
Pyrola minor L. *lesser pyrola, small wintergreen; pyrole mineure*	Swd	N1	
Pyrola secunda . . . see Orthilia secunda			
Rhododendron canadense (L.) Torr. *rhodora; rhododendron du Canada*	Olf	N4	
Vaccinium angustifolium Ait. *lowbush blueberry; bleuets, airelle à feuilles étroites*	Olf	N5	
Vaccinium caespitosum Michx. *dwarf bilberry; airelle gazonnante*	Riv	$N3^{Rfnp}$	Hcm
Vaccinium macrocarpon Ait. *large cranberry; airelle à gros fruits, gros atocas*	Bog	N4	

	Hab.	Abn.	Doc.
Vaccinium myrtilloides Michx. *sour-top, Canada or velvet-leaf blueberry; airelle fausse-myrtille*	Swd Olf	N3	
Vaccinium oxycoccos L. *small cranberry; airelle canneberge, atocas*	Olf	N4	
Vaccinium vitis-idaea L. ssp. minus (Lodd.) Hulten *mountain cranberry, foxberrry; airelle vigne-d'Ida*	Olf Clf	N4	

PRIMULACEAE — Primrose Family

Glaux maritima L. ssp. obtusifolia (Fern.) Boivin *sea milkwort; glaux maritime*	Sal	N3	Obs
Lysimachia terrestris (L.) B.S.P. *yellow or swamp loosestrife; lysimaque terrestre*	Spr Olf	N3	
Lysimachia vulgaris L. *garden loosestrife; lysimaque vulgaire*	Olf	Ir	Obs
Primula farinosa L. = P. laurentiana Fern. = P. mistassinica var. macropoda *Laurentian or bird's eye primrose; primevère laurentienne*	Clf	N2◇nb	
Trientalis borealis Raf. *star-flower; trientale boréale*	Sfw	N4	

PLUMBAGINACEAE — Leadwort Family

Limonium carolinianum (Walt.) Britt. = L. nashii Small. var. trichogonum Blake *sea lavender; limonium de Nash*	Sal	N3	

OLEACEAE — Olive Family

Fraxinus americana L. *white ash; fréne d'Amerique*	Val	N1	
Fraxinus excelsior L. *European ash; fréne d'Europe*	Val	N1	

	Hab.	Abn.	Doc.
Syringa vulgaris L. *lilac; lilas vulgaire*	Olf	Ic	

MENYANTHACEAE (GENTIANACEAE) Buckbean Family

Menyanthes trifoliata L. var. minor Raf. *bog-bean, buckbean; ménianthe trifolié*	Lac Bog	N3	
Nymphoides cordata (Ell.) Fern. *floating heart; faux-nymphéa à feuilles cordées*	Lac	N4	Hcm

APOCYNACEAE Dogbane Family

Apocynum cannabinum L. var. hypericifolium Gray *Indian hemp; apocyn chanvrin*	Riv	N3	

CONVOLVULACEAE Bindweed family

Calystegia sepium L. ssp. sepium = Convolvulus sepium L. *hedge bindweed; liseron des haies*	Dun	N2	

POLEMONIACEAE Phlox Family

Phlox paniculata L. *garden phlox; phlox paniculé*	Olf	Ix	Obs

BORAGINACEAE Borage Family

Mertensia maritima (L.) Gray *oyster-leaf, sea lungwort; mertensia maritime*	Dun	N2	
Myosotis scorpioides L. *forget-me-not; myosotis scorpioïde*	Spr	N4	
Myosotis stricta Link ex Roemer & Schultes =M. micrantha	Olf	Ir$^{\diamond nb}$	

	Hab.	Abn.	Doc.
LAMIACEAE (LABIATAE) — Mint Family			
Galeopsis tetrahit L. *hemp nettle; galeopside à tige carée*	Olf Rds	Ic	
Glechoma hederacea L. *ground ivy, gill-over-the-ground; glécome lierre*	Olf	Ir	
Leonurus cardiaca L. *motherwort; agripaume cardiaque*	Olf	Ir	
Lycopus uniflorus Michx. *bugleweed; lycope uniflore*	Spr	N4	
Mentha arvensis L. *field mint; menthe des champs*	Olf Riv	N3	
Mentha spicata L. *spearmint; menthe à épis, baume*	Riv	N3	Obs
Nepeta cataria L. *catnip; népéta cataire, herbe à chats*	Olf	Ix	
Prunella vulgaris L. var. elongata Benth. *self-heal, heal-all; prunelle vulgaire, herbe au charpentier*	Olf Riv	Ic	
Scutellaria galericulata L. = S. epilobifolia A.Hamilton *marsh skullcap; scutellaire à feuilles d'épilobe*	Lac Spr	N3	
Scutellaria lateriflora L. *mad-dog skullcap; scutellaire latériflore*	Lak Olf	N3	
SOLANACEAE — Potato Family			
Datura stramonium L. *jimsonweed, thorn-apple; datura stramoine*	Olf	Ix	
Solanum dulcamara L. *bittersweet, nightshade; morelle douce-amère*	Olf	Ir	Obs

	Hab.	Abn.	Doc.
SCROPHULARIACEAE—Snapdragon or Figwort Family			
Chelone glabra L. *turtle-head; galane glabre*	Spr Riv	N3	
Euphrasia nemorosa (Pers.) Wallr. = E. americana Wattst. = E. canadensis Towns. *common eye-bright; euphraise*	Rds Olf	N5	
Linaria vulgaris P.Mill. *butter-and-eggs; linaire vulgaire*	Olf Dun	N3	
Mimulus moschatus Dougl. *muskflower, monkey-flower; mimule musqué*	Spr	N2	
Rhinanthus minor L. = R. crista-galli L. *yellow rattle; rhinanthe crête-de-coq*	Olf	N5	
Verbascum thapsus L. *giant mullein; molène vulgaire*	Rds	N3	Ptg
Veronica americana (Raf.) Schwein. *brooklime; véronique américaine*	Spr	N3	
Veronica longifolia L. *long-leaved speedwell; véronique à longues feuilles*	Olf	Ir	
Veronica officinalis L. *common speedwell; véronique officinale*	Olf Rds	N5	
Veronica peregrina L. *purselane speedwell; véronique voyageuse*			Hcm
Veronica persica Poir. *Persian speedwell; véronique de perse*			Hcm
Veronica scutellata L. *marsh speedwell; véronique en écusson*	Spr	N3	
Veronica serpyllifolia L. *thyme-leaved speedwell; véronique à feuilles de serpent*	Olf	N3	

	Hab.	Abn.	Doc.
OROBRANCHACEAE Broom-rape Family			
Epifagus virginiana (L.) Bart. *beech drops; épifage de Virginie*	Hwd	N3	Hcm
LENTIBULARIACEAE Bladderwort Family			
Utricularia cornuta Michx. *horned bladderwort; utriculaire cornue*	Bog	N3	
Utricularia intermedia Hayne *intermediate bladderwort; utriculaire intermédiaire*			Obs
Utricularia vulgaris L. *common bladderwort; utriculaire vulgaire*	Lak	N4	
PLANTAGINACEAE Plantain Family			
Plantago major L. *common plantain; plantain majeur*	Olf Rds	Iw	
Plantago maritima (L.) var. juncoides (Lam.) Gray = P. juncoides Lam. var. decipens (Barn.) Fern. *seaside plantain, goosetongue; plantain joncoïde*	Sal	N4	
RUBIACEAE Bedstraw or Coffee Family			
Galium asprellum Michx. *rough bedstraw; gaillet piquant*	Spr	N4	
Galium mollugo L. = G. erectum Huds. *wild madder, cleavers; gaillet mollugine*	Rds	N4	
Galium palustre L. *marsh bedstraw; gaillet palustre*	Spr	N3	
Galium tinctorium L. *dyer's bedstraw; gaillet des teinturiers*	Spr	N3	

	Hab.	Abn.	Doc.
Galium trifidum L. *small bedstraw; gaillet trifide*	Spr	N3	
Galium triflorum Michx. *sweet bedstraw; gaillet à trois fleurs*	Riv	N3	
Hedyotis caerulea (L.) Hook. = Houstonia caerulea L. *bluets, innocence; houstonie bleue*	Olf	Ir	
Mitchella repens L. *partridge-berry; mitchella rampant*	Mix	N3	Ptg

CAPRIFOLIACEAE — Honeysuckle Family

Diervilla lonicera Mill. *bush honeysuckle; diérville chèvrefeuille*	Mix	N4	
Linnaea borealis L. *twinflower; linée boréale*	Swd	N4	
Lonicera canadensis Bartr. *fly honeysuckle; chèvrefeuille du Canada*	Mix Olf	N4	
Lonicera tatarica L. *Tartarian bush honeysuckle; chèvrefeuille de Tartarie*	Orn	Ir	
Lonicera villosa (Michx.) R.& S. *mountain or hairy honeysuckle; chèvrefeuille velu*	Mix	N3	
Sambucus canadensis L. *Canadian elder, red or common elder; sureau du Canada*	Rds Riv	N4	
Sambucus racemosa L. = S. pubens Michx. *red-berried elder; sureau rouge ou pubescent*	Orn	Ir	Obs
Symphoricarpos albus (L.) Blake *snowberry bush, waxberry; symphorine blanche*	Olf	Ir	
Viburnum cassinoides L. *withe-rod, wild raisin; viorne cassinoïde*	Bog Swd	N4	

	Hab.	Abn.	Doc.
Viburnum edule (Michx.) Raf. *squashberry, cranberry bush, squawberry; viorne commestible, pimbina*	Riv Spr	N	Rfnp
Viburnum lantanoides Michx. = V. alnifolium Marsh. *hobblebush; viorne à feuilles d'aulne*	Hwd Mix	N4	
Viburnum trilobum Marsh. *highbush cranberry; viorne trilobée, pimbina*	Clf	N1	

VALERIANACEAE — Valerian Family

Valeriana officinalis L. *valerian; valériane officinale*	Olf	Ic	

CAMPANULACEAE — Bluebell Family

Campanula rapunculoides L. *Canterbury bells; campanule fausse-raiponce*	Olf Rds	Ir	
Campanula rotundifolia L. *harebell; campanule à feuilles rondes*	Riv Clf	N4	
Lobelia dortmanna L. *water lobelia; lobélie de Dortmann*	Lak	N4	
Lobelia inflata L. *Indian tobacco; lobelie gonflée*	Olf	N3	

ASTERACEAE (COMPOSITAE) — Aster Family

Achillea millefolium L. var. lanulosa (Nutt.) Piper = A. lanulosa Nutt. = A. millefolium L. var. rosea Rand & Redf. *common yarrow and purple yarrow; achillée millefeuille*	Olf Rds	Ic	
Achillea ptarmica L. *sneezeweed; achillée ptarmique*	Rds	Ir	

	Hab.	Abn.	Doc.
Anaphalis margaritacea (L.) Benth. & Hook f. *pearly everlasting; anaphale marguerite, immortelle*	Olf Rds	N5	
Antennaria neglecta Greene var. attenuata (Fern.) Cronq. = A. neodioica Greene var attenuata Fern. *pussy-toes; antennaire néodioïque, imortelle*	Clf Rds	N4	
Antennaria neglecta Greene var. randii (Fern.) Cronq. = A. canadensis Gray	Riv	N3	
Anthemis cotula L. *chamomile; camomille maroute*		I	Obs
Arctium minus Bernh. *common burdock; bardane mineure*	Olf	Ir	
Artemisia campestris L. ssp. caudata (Michx.) Hall & Clements = A. canadensis Michx. *Canada wormwood; armoise du Canada*	Clf Dun	N2	
Artemisia stelleriana Bess. *beach wormwood, dusty miller; armoise de Steller*	Dun	Ic	
Aster acuminatus Michx. *wood aster; aster acuminé*	Hwd	N4	
Aster cordifolius L. *heart-leaved aster; aster à feuilles cordées*	Olf	N4	
Aster lateriflorus (L.) Britt. *calico aster; aster latériflore*	Olf Rds	N4	
Aster nemoralis Ait. *bog aster; aster des bois*	Bog	N3	
Aster novi-belgii L. *New York aster; aster de la Nouvelle-Belgique*	Olf Rds	N4	
Aster puniceus L. *purple-stemmed aster; aster ponceau*	Olf	N4	
Aster umbellatus Mill. *umbellate aster; aster à ombelles*	Olf	N3	

	Hab.	Abn.	Doc.
Bidens frondosa L. *common beggar-ticks; bident feuillu*	Lak	N3	
Centaurea maculosa Lam. *spotted knapweed; centaurée maculée*	Olf Rds	Ic	
Centaurea nigra L. *black knapweed; centaurée noire*	Rds	Ir	
Chrysanthemum leucanthemum . . . see Leucanthemum vulgare			
Cirsium arvense (L.) Scop. *Canada thistle; chardon des champs*	Olf Rds	Ic	
Cirsium muticum Michx. *swamp thistle; chardon mutique*	Spr	N3	
Cirsium vulgare (Savi) Tenore *bull thistle; chardon vulgaire*	Olf	Ic	
Erigeron hyssopifolius Michx. *hyssop-leaved fleabane; érigéron à feuilles d'hyssope*	Clf Riv	N3	
Erigeron philadelphicus L. *Philadelphia fleabane; érigéron de Philadelphie*		N	Obs
Erigeron strigosus Muhl. *lesser daisy-fleabane; érigéron hispide*	Olf	Ic	
Eupatorium maculatum L. *Joe-Pye weed; eupatoire maculée*	Riv Spr	N4	
Eupatorium perfoliatum L. *boneset; eupatoire perfoliée*	Riv Spr	N3	Obs
Eupatorium rugosum Houtt; *white snakeroot; eupatoire rugueuse*	Hwd	N3	
Euthamia graminifolia (L.) Nutt. = Solidago graminifolia (L.) Salisb. *grass-leaved goldenrod; verge d'or graminifoliée*	Olf Rds	N4	
Gnaphalium sylvaticum L. *forest cudweed; gnaphale des bois*	Rds	N2	

	Hab.	Abn.	Doc.
Helianthus giganteus L. *giant sunflower; soleil géant*	Olf	Ix	
Helianthus nuttallii T. & G. ssp. rydbergii (Britt.) Long	Olf	Ix	
Hieracium aurantiacum L. *orange hawkweed, devil's paintbrush; épervière orangée*	Olf	Iw	
Hieracium caespitosum Dumort *king devil hawkweed;*	Olf	Iw	
Hieracium canadense Michx. *panicled hawkweed; épervière du Canada*	Olf	N5	
Hieracium piloselle L. *mouse-ear hawkweed; épervière piloselle*	Olf	Iw	
Leontodon autumnalis L. *fall dandelion; léontodon automnal*	Rds Olf	Iw	
Leontodon autumnalis L. var. pratensis (Link.) W.D.J. Koch *fall dandelion; léontodon automnal*	Rds	Iw	
Leucanthemum vulgare Lam. = Chrysanthemum leucanthemum L. *ox-eye daisy; marguerite*	Olf Rds	Iw	
Matricaria matricarioides (Less.) Porter *pineapple weed; matricaire odorante*	Rds	Ic	
Prenanthes altissima L. *tall white-lettuce; prenanthe élevée*	Mix	N4	
Prenanthes trifoliata (Cass.) Fern. *white wild-lettuce; prenanthe trifoliée*	Mix Olf	N4	
Rudbeckia hirta L. var. pulcherrima Farw. = R. serotina Nutt. *black-eyed Susan; marguerite jaune*	Rds	Ir	
Senecio aureus L. *golden ragwort; séneçon doré*	Mix Spr	N3	

	Hab.	Abn.	Doc.
Senecio jacobaea L. *tansy ragwort; séneçon Jacobée*	Rds	Ir	
Senecio schweinitzianus Nutt. = S. robbinsii Oakes *swamp ragwort; séneçon de Robbins*	Spr	N3	
Senecio viscosus L. *clammy groundsel; séneçon visqueux*	Rds	Ic	
Senecio vulgaris L. *common groundsel; séneçon vulgaire*	Olf Rds	Ic	
Solidago bicolor L. *silverrod; verge d'or bicolore*	Rds Olf Clf	N4	
Solidago canadensis L. *Canada goldenrod; verge d'or du Canada*	Olf	N5	
Solidago flexicaulis L. *wood goldenrod; verge d'or à tige zigzaguante*	Hwd	N3	
Solidago gigantea Ait. var. serotina (Ait.) Cronq. = S. gigantea Ait. var. leiophylla Fern. *giant goldenrod; verge d'or géante*	Olf	N3	
Solidago graminifolia . . . see Euthamia graminifolia			
Solidago macrophylla Pursh. *large-leaf goldenrod; verge d'or à grandes feuiles*	Mix Olf	N4	
Solidago puberula Nutt. *downy goldenrod; verge d'or pubérulante*	Olf	N4	
Solidago rugosa Ait. *rough-stemmed goldenrod; verge d'or rugueuse*	Olf	N3	
Solidago rugosa Ait. var. villosa (Pursh.) Fern.	Olf	N	
Solidago sempervirens L. *seaside goldenrod; verge d'or toujours verte*	Sal	N3	Obs

	Hab.	Abn.	Doc.
Solidago uliginosa Nutt. *swamp goldenrod; verge d'or des marais*	Olf	N	
Tanacetum vulgare L. *common tansy; tanaisie vulgaire*	Dun Rds	Ir	
Taraxacum officinale Weber *dandelion; pissenlit officinal*	Rds Olf	Iw	Ptg
Tussilago farfara L. *coltsfoot; tussilage farfara, pas d'âne*	Riv	Iw	

Literature Cited

Anonymous. 1936-1984. **Annual Reports of the Forest Insect and Disease Survey**. Technical Report, Canadian Forestry Service, Ottawa.

Bérubé, L. 1972. **Herbarium List, Fundy National Park**. Internal document, Fundy National Park. 10pp.

Burzynski, M. P. 1983. **The Vascular Flora of Fundy National Park**. Internal report, Fundy National Park. 39pp.

Burzynski, M. P. 1984. **Prehistoric Fires and Vegetation Changes as Recorded in Peat from New Brunswick Bogs**. M.Sc. Thesis, University of New Brunswick, Fredericton. 43pp.

Christie, D. S. 1967. **Herbarium List, Fundy national Park.** Internal report, Fundy National Park.

Clayden, S. R. 1974. **Herbarium List, Fundy National Park.** Internal document, Fundy National Park. 14pp.

Deichmann, K. H., and M. Burzynski, W. Cairns, S. R. Clayden, M. Valotaire. 1974 a. **Details of Rare or Unusual Plant Collections and Sightings for the Year 1974.** Internal report, Fundy National Park. 36pp.

Deichmann, K. H., W.E. Cairns, S. R. Clayden, B. F. Spencer, and M. Valotaire. 1974 b. **Some Formerly Cultivated Plants Persisting in Fundy National Park**. Internal report, Fundy National Park. 12pp.

Deichmann, K. H., M. Burzynski, and A. Marceau. 1980. **Documentation of Rare and Unusual Plants, Fundy National Park (Revised).** Internal report, Fundy National Park. 15pp.

Gowan, S. P. 1984. **Phytogeography of the Lichens of Fundy National Park**. M.Sc. Thesis, Carleton University, Ottawa. 146pp.

Gray, L. 1979. **An Appraisal of Conditions in the Softwood Forest of Fundy National Park**. Internal report, Fundy National Park. 14pp.

Hinds, H. R. 1982. **The Rare Vascular Plants of Fundy National Park**. Internal report, Fundy National Park. 24pp.

Hinds, H. R. 1983. **The Rare Vascular Plants of New Brunswick**. Syllogeus No. 50, National Museums of Canada, Ottawa. 38pp.

Hirvonen, R., and R. J. Madill. 1978. **Fundy National Park, N.B. and the Proposed Western Extension, Integrated Resource Study**. Forest Management Institute Information Report. FMR-X-105, Canadian Forestry Service, Environment Canada. 225pp.

Kartesz J. and R. Kartesz. 1980. **A Synonymized Checklist of the Vascular Flora of the United States, Canada, and Greenland**. University of North Carolina Press, Chapel Hill, N.C. 500pp.

Kerakes, J. 1967. **Progress Report on the Distribution of Aquatic Plants, Fundy National Park**. Internal report, Fundy National Park. 1p.

Kettella, E. G. and G. V. Moran. 1972-73-74. **Forest Insects and Tree Diseases in National Parks in the Maritime Provinces.** Technical report, Canadian Forestry Service, Ottawa.

Lothian, T. M. 1950. **Report on Work Carried out at Fundy National Park**. Internal report, Fundy National Park. 38pp.

Loucks, O. L. 1962. **A Forest Classification for the Maritime Provinces.** Nova Scotia Institute of Science, 25: 85-167.

MacFarlane, J. M. 1972. **The Flora and Fauna of Fundy National Park**. Internal report, Fundy National Park. 40pp.

Marceau, A. 1981. **Plants Occuring in Fundy National Park**. Internal report, Fundy National Park. 14pp.

McGinity, J. 1977. **A Survey of Formerly Cultivated Plants in Old Homesteads of Headquarters Area, Fundy National Park**. Internal report, Fundy National Park. 4pp.

Meikle, D. A. 1980-81. **Forest Insects and Diseases in Fundy National Park.** Technical Notes, Fundy National Park.

Methven, I. R. 1981. **The Spruce Budworm in Fundy National Park: Is it a Problem Requiring Action?** Parks Canada Contract 79-222.

Prescott, W. 1975. **Browse Survey of Fundy National Park - Preliminary Survey.** Internal report, Fundy National Park.

Roland, A. E. and E. C. Smith. 1969. **The Flora of Nova Scotia**. Nova Scotia Institute of Science, N.S. Museum, Halifax. 764pp.

Rowe, J. S. 1972. **Forest Regions of Canada.** Information Canada, Cat. #FO-47-1300, Ottawa. 172pp.

Wein, R. W. and J. M. Moore. 1977. **Fire History and Rotations in the New Brunswick Acadian Forest**. Canadian Journal of Forest Research. 7: 285-294.

Wein, R. W. 1978. **Historic and Prehistoric Role of Fire in the Maritime National Parks**. Progress report, Dept. of Biol. UNB Fredericton. 45pp.

Woodley, S. J. 1983. **A Plan to Manage Non-native Flora in Fundy National Park**. Internal report, Fundy National Park. 31pp.

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